



The United States Coast Guard
Marine Safety Manual
Volume III: Marine Industry
Personnel



COMDTINST 16000.8B Change 2

otherwise, this Commandant Change Notice is effective as of the date of publication. Any discrepancies with vessel manning or endorsements should be brought to the attention of the owner/operator or Officer in Charge, Marine Inspection (OCMI) and discussed during the next scheduled Coast Guard attendance with a view of aligning with this revised guidance.

5. DISCLAIMER. This guidance is not a substitute for applicable legal requirements, nor is it itself a rule. It is not intended to nor does it impose legally binding requirements on any party. It represents the Coast Guard's current thinking on this topic and may assist industry, mariners, the general public, and the Coast Guard, as well as other Federal and State regulators, in applying statutory and regulatory requirements. Members of the public may use an alternative approach if the approach satisfies the requirements of the applicable statutes and regulations.
6. MAJOR CHANGES. All changes are underlined in the final version and each changed page is annotated with CH-2 in the footer. For a summary of all of the changes, as well as to view any associated documents, go to <http://www.regulations.gov>, using "USCG-2016-0669" as the search term. Available for viewing in the public docket is a change matrix that provides a summary of each specific public comment and the corresponding Coast Guard response; the change matrix also lists and explains changes made by the Coast Guard but not prompted by public comments. Substantive changes to Part B and Part C of this Manual include:
 - a. Updated provisions to align with the Howard Coble Coast Guard and Maritime Transportation Act of 2014 Pub. L. 113-281; Sections 316, 319, and 601. Specifically, Section 316 made statutory changes which amended multiple paragraphs of 46 U.S.C. 8104. Section 319 amended 46 U.S.C. 4105 and Section 601 amended the 46 U.S.C. 8103 note.
 - b. Incorporates updated information on riding gangs, 46 U.S.C. 8106. Chapter B1, Section J.
 - c. Incorporates Guidelines for Liquefied Natural Gas Fuel Transfer Operations and Training of Personnel on Vessels Using Natural Gas as Fuel, by reference. Chapter B2, Section A.
 - d. Corrects a longstanding discrepancy between in the Tables of Additional Deckhands for small passenger vessels and the regulatory breakpoints established in 46 CFR Subchapters T and K. The tables have been adjusted to align with the regulatory breakpoints as well as the base thresholds originally established in the 1955 Merchant Marine Safety Manual (CG-203), per amendment #26 of 1973. Chapter B2, Sections C & D.
 - e. Updated policy reflecting the regulations for Offshore Supply Vessels of at Least 6,000 GT ITC (79 FR 48894, August 18, 2014)]. Chapter B2, Section L.
 - f. Consolidates hydrofoils under a single header and incorporates High-Speed Craft. Chapter B2, Section T.
 - g. Having considered the recommendations of the Towing Safety Advisory Committee (TSAC), Tasks 13-02 and 15-01, the Coast Guard has included manning scales for towing vessels inspected under 46 CFR Subchapter M, which comply with the current provisions of Title 46, U.S. Code (U.S.C.) Subtitle II, Part F. This includes scales for towing vessels of 300 GRT or

more exclusively in Great Lakes service, which were not included in the TSAC recommendation. The scales are presented in a new standard format. Chapter B2, Section W.

- h. Adds a figure for Tonnage Applicability: Dual-Tonnage Vessels. Chapter B3, Section B.
- i. Clarifies the Federal and First-Class Pilot requirements. Chapter B3, Section I.
- j. Adds clarification for Person in Charge of Medical Care. Chapter B3, Section Q.
- k. Adds discussion on Port Relief Officers. Chapter B3, Section R.
- l. Adds considerations for the assignment of Able Seamen (ABs) on vessels of limited size. Chapter B4, Section D.
- m. Includes a section on Cadets, Student Observers & Apprentices. Chapter B4, Section G.
- n. Revisions for the International Safety Management (ISM) Code, as amended by IMO Resolution MSC.353(92). Chapter B5, Section F.
- o. Created Sample Reduced Scales for certain vessels with automated engineering systems. Chapter B6, Section A.
- p. Adds an Abbreviations section, Suggested Manning Proposal Template, MMS Work Instruction, Master's Field Guide, and a Manning Verification Check-sheet.

7. ENVIRONMENTAL ASPECT AND IMPACT CONSIDERATIONS.

- a. The development of this Commandant Change Notice and the general policies contained within it have been thoroughly reviewed by the originating office in conjunction with the Office of Environmental Management, and are categorically excluded (CE) under current USCG CE # 33 from further environmental analysis, in accordance with Section 2.B.2. and Figure 2-1 of the National Environmental Policy Act Implementing Procedures and Policy for Considering Environmental Impacts, COMDTINST M16475.1 (series). Because this Commandant Change Notice contains guidance on, and provisions for, compliance with applicable environmental mandates, Coast Guard categorical exclusion #33 is appropriate.
- b. This directive will not have any of the following: significant cumulative impacts on the human environment; substantial controversy or substantial change to existing environmental conditions; or inconsistencies with any Federal, State, or local laws or administrative determinations relating to the environment. All future specific actions resulting from the general policies in this Commandant Change Notice must be individually evaluated for compliance with the National Environmental Policy Act (NEPA), DHS and Coast Guard NEPA policy, and compliance with all other environmental mandates. Due to the administrative and procedural nature of this Commandant Change Notice, and the environmental guidance provided within it for compliance with all applicable environmental laws prior to promulgating any directive, all applicable environmental considerations are addressed appropriately in this Commandant Change Notice.

8. **DISTRIBUTION.** No paper distribution will be made of this Commandant Change Notice. An electronic version will be located on the following Commandant (CG-612) web sites. Internet: <http://www.dcms.uscg.mil/Our-Organization/Assistant-Commandant-for-C4IT-CG-6-/The-Office-of-Information-Management-CG-61/aboutCGDS/> , and CGPortal: <https://cgportal2.uscg.mil/library/directives/SitePages/Home.aspx>.

9. **PROCEDURE.** Remove and replace the following sections of The Marine Safety Manual, Volume III, Marine Industry Personnel, COMDTINST M16000.8B:

Remove	Replace
Forward	Forward
Contents IV-X	Contents IV-X
Chapters B1-B7	Chapters B1-B7
Chapter C1-C2	Chapter C1-C2
LIF-i	LIF-i & ABB-i-ii
ANNEX	ANNEX

10. **RECORDS MANAGEMENT CONSIDERATIONS.** This Commandant Change Notice has been thoroughly reviewed during the directives clearance process, and it has been determined there are further records scheduling requirements, in accordance with Federal Records Act, 44 U.S.C. 3101 et seq., NARA requirements, and Information and Life Cycle Management Manual, COMDTINST M5212.12 (series). This policy does not create significant or substantial change to existing records management requirements.

11. **FORMS/REPORTS.** The forms referenced in this Manual are available in USCG Electronic Forms on the Standard Workstation or on CG Portal <https://cgportal2.uscg.mil/delivery/Satellite/CG611/FORMS> and Intranet at <http://www.dcms.uscg.mil/Our-Organization/Assistant-Commandant-for-C4IT-CG-6-/The-Office-of-Information-Management-CG-61/aboutFormsManagement/>.

12. **REQUEST FOR CHANGES.** Units and individuals may recommend changes via the chain of command to: CG-CVC-1@uscg.mil.

P. F. THOMAS /s/
Rear Admiral, U.S. Coast Guard
Assistant Commandant for Prevention Policy

announcing the availability of the changes to Part B (legacy chapters 20 – 26) and requested public comments (See 78 FR 48696 and 79 FR 14714) as well as input from the Merchant Marine Personnel Advisory Committee. The final Notice of Availability, including comments and material received from the public, as well as documents mentioned as being available in the docket, are part of docket USCG-2013-0240. Unless specifically stated otherwise, this Commandant Change Notice is effective as of the date of publication. Any discrepancies with vessel manning or endorsements should be brought to the attention of the owner/operator or Officer in Charge, Marine Inspection (OCMI) and discussed during the next scheduled Coast Guard attendance with a view of aligning with this revised guidance.

5. **DISCLAIMER.** This guidance is not a substitute for applicable legal requirements, nor is it itself a rule. It is not intended to nor does it impose legally binding requirements on any party. It represents the Coast Guard's current thinking on this topic and may assist industry, mariners, the general public, and the Coast Guard, as well as other Federal and State regulators, in applying statutory and regulatory requirements. Members of the public may use an alternative approach if the approach satisfies the requirements of the applicable statutes and regulations.
6. **MAJOR CHANGES.** This Change is presented in a new format, to facilitate future revisions by creating three distinct parts; Part A: Mariner Credentialing (Chapters 1-17), Part B: Vessel Manning (legacy Chapters 20-26, now Chapters 1-7), and Part C: Shipment and Service (legacy Chapters 18-19, now Chapters 1-2). This Change includes revisions to Part C, Chapters 1 and 2, to account for revised regulations, updated CG-Forms, and reformatting. Substantive changes to Part B, Chapters 1-7, of this Manual include:
 - a. Full alignment with Deputy Commandant for Operations Organization 3.0 for clarity of roles and responsibilities and facilitation of communications with appropriate offices in Headquarters.
 - b. Updated general provisions for vessel manning, including guidance for the issuance of safe manning documents.
 - c. Incorporates updated information on the Global Maritime Distress and Safety System (GMDSS).
 - d. Revised discussion on the impact of multiple international standards, including; the Officer's Competency Certificates Convention (OCCC) 1936, the International Convention for Safety of Life at Sea (SOLAS), and the Principles of Minimum Safe Manning (IMO Resolution A.1047(27)).
 - e. Clarification on the applicability of tonnage measurement systems to U.S. flag vessels.
 - f. Changes resulting from the consolidation of merchant mariner qualification credentials, including the removal of references to the operator uninspected towing vessel (OUTV) endorsement.

- g. Context on the allowable employment and conditions of a two-watch system for specific vessel types.
- h. Updated policy reflecting the regulations for the Implementation of the 2010 Amendments to the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, (STCW) and Changes to National Endorsements (78 FR 1625-AA16, 247 [December 24, 2013]).

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Remove	Replace
Contents IV-VII	Contents IV-VII
Chapters 18-19	Chapters C1-C2
Chapters 20-26	Chapters B1-B7
List of Figures F-i	List of Figures LIF-i
IMO Resolution A.481(XII)	Annex
Index I-1 – I-18	*Removed

10. RECORDS MANAGEMENT CONSIDERATIONS. This Instruction has been thoroughly reviewed during the directives clearance process, and it has been determined there are further records scheduling requirements, in accordance with Federal Records Act, 44 U.S.C. 3101 et seq., NARA requirements, and Information and Life Cycle Management Manual, COMDTINST M5212.12 (series). This policy does not create significant or substantial change to existing records management requirements.
11. FORMS/REPORTS. The forms referenced in this Manual are available in USCG Electronic Forms on the Standard Workstation or on the Internet: <http://www.uscg.mil/forms/>; CG Portal <https://cgportal2.uscg.mil/delivery/Satellite/CG611/FORMS> and Intranet at <http://cgweb.comdt.uscg.mil/CGForms>.
12. REQUEST FOR CHANGES. Units and individuals may recommend changes via the chain of command to: CG-CVC-1@uscg.mil.

P. F. THOMAS /s/
Rear Admiral, U.S. Coast Guard
Assistant Commandant for Prevention Policy

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of Transportation

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COMDTINST M16000.8B
MAY 27 1999

COMMANDANT INSTRUCTION M16000.8B

Subj: MARINE SAFETY MANUAL, VOLUME III, MARINE INDUSTRY PERSONNEL

1. PURPOSE: This Manual provides information and Marine Safety program interpretations on international conventions and U.S. statutory and regulatory issues relating to marine industry personnel.
2. ACTION. Area and district commanders, commanders of maintenance and logistics commands, commanding officers of headquarters units, assistant commandants for directorates, Chief Counsel, and specialty staff offices at Headquarters shall ensure that personnel responsible for activities related to marine industry personnel are familiar with and guided by the provisions of this manual.
3. DIRECTIVES AFFECTED. Marine Safety Manual, Volume III, Marine Industry Personnel, COMDTINST M16000.8A dated 25 March 1997, and NMC Policy Letter 5-98 are hereby canceled.
4. DISCUSSION. This revision of Volume III of the Marine Safety Manual incorporates editorial changes resulting from the reorganization of the Mariner Licensing and Documentation Program at the headquarters level. Subsequent to the last revision, the staff and responsibilities of Commandant, G-MOC-1, were transferred to the National Maritime Center. Also incorporated are the Policy changes resulting from the 1998 Regional Examination Center Conference and significant revisions to guidance on approved course management (Chapter 7) and conduct of examinations (Chapter 5).
5. FORMS AVAILABILITY. See list of forms, Table Of Contents, page VII.

/s/

R. C. NORTH

Rear Admiral, U.S. Coast Guard
Assistant Commandant for Marine
Safety and Environmental Protection

COMDTINST M16000.8B

Non-Standard Distribution:

- C:e New Orleans (45); San Francisco Bay, Long Beach, Toledo, Boston, Miami, Puget Sound (25); Morgan City, Houston-Galveston, Hampton Roads, Mobile (20); Honolulu, Portland OR, Portland ME, Memphis, Charleston, Providence (15); Anchorage (13); Chicago, Corpus Christi (12); Jacksonville (11); Long Island Sound, Philadelphia, Guam, Juneau, St. Louis (10); Savannah (9); Paducah, Wilmington, Port Arthur, San Juan (8); Pittsburgh (7); Buffalo, Tampa, San Diego (6); Duluth, Detroit, Prince William Sound (5); Cleveland, Huntington, Louisville, Sault Ste. Marie, Milwaukee (4).
- C:m National Maritime Center (40); Acteur/MIO Europe, Feact/Asia (10); Falling Waters (1).
- C:n New York, Baltimore (30).
- D:l CG Liaison Officer MILSEALIFTCOMD (Code N-7CG), CG Liaison Officer MARAD (MAR-720.2), CG Advisor NWC, CG Liaison Officer COMUSNAVCENT, CG Liaison Officer ABS Americas (1).
- E:o Grand Haven (4).

ABS Americas (8).

American Council on Education (8).

DNV (8).

Lloyd's Register of Shipping (8).

NTSB (Marine Accident Division) (2).

CG Liaison U.S. Merchant Marine Academy, Kings Point, NY (1).

NOAA Fleet Inspector (1).

DOJ Torts Branch (Washington, DC; New York; San Francisco) (1).

MARAD (MRG 4700) (1).

MSC (Code N-00M3) (1).

FOREWORD

The United States Coast Guard (USCG) is the nation's lead federal agency charged with the superintendence of the U.S. Merchant Marine and steward for associated International Conventions. In executing these responsibilities, the USCG prescribes regulations and develops policy to ensure that inspected and certain uninspected vessels are safely manned with qualified and competent mariners. The specific statutory basis for this charge is rooted in Title 46, U.S. Code (U.S.C.) Subtitle II, specifically § 2103:

“The Secretary has general superintendence over the merchant marine of the United States and of merchant marine personnel insofar as the enforcement of this subtitle is concerned and insofar as those vessels and personnel are not subject, under other law, to the supervision of another official of the United States Government. In the interests of marine safety and seamen's welfare, the Secretary shall enforce this subtitle and shall carry out correctly and uniformly administer this subtitle. The Secretary may prescribe regulations to carry out the provisions of this subtitle.”

Central to this charge is the intricate relationship between mariner credentialing, seamen's welfare and protection, vessel manning, and watchkeeping. Although their origins are distinct, these components are necessarily linked forming a network critical to the interests of a safe, secure, and environmentally sound Marine Transportation System. Marine Safety Manual Volume III outlines the various domestic laws, regulations, and international requirements governing marine industry personnel and provides fundamental policy and procedures for the administration of these functions. Volume III is organized into three parts; Part A: Mariner Credentialing, Part B: Vessel Manning, and Part C: Shipment and Service. Related policy can also be found in MSM Volumes I, II, IV, and V.

Unless expressly provided otherwise, Parts B and C are intended to apply to Vessels of the United States. Reference MSM Volume II Section D for port state control guidance applicable to foreign vessels. Part B of this Volume may be referenced generally for those foreign vessels certificated by the U.S. Coast Guard, as well as for those without minimum safe manning documentation issued by their flag State to verify that the certification of the crew and minimum safe manning standard is compatible with the objectives of the STCW Convention and U.S. laws and regulations.

Area Commanders, District Commanders, Sector Commanders and unit Commanding Officers shall ensure that they and their personnel are familiar with the provisions of this Volume. The Volume must be used in concert with appropriate marine safety laws and regulations. In any case of apparent conflict between provisions of this manual and any statute or regulation, the legal requirements take precedence and the Office of Commercial Vessel Compliance, Commandant (CG-CVC) should be informed through the appropriate chain of command so that the matter can be resolved. In case of conflict between provisions of this Volume and conventional practice, the cognizant Officer in Charge, Marine Inspection (OCMI) should work through their chain of command to resolve the issue.

Program policy inquiries regarding Part A should be directed to the Office of Merchant Mariner Credentialing (CG-MMC). Program policy inquiries regarding Parts B and C may be generally directed to the Office of Commercial Vessel Compliance (CG-CVC).

FOREWORD

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NOTE: This change has reorganized the previous chapters under parts based on subject matter. The chapter numbers start over at “1” for each part. The chapter reference now includes both the part and chapter identification (e.x. The old Chapter 1 would now be A1). The new parts are:

Part ID	Part Title
A.	Mariner Credentialing
B.	Vessel Manning
C.	Shipment and Service

The date of each change since 1999 is shown in parentheses at the end of the subsection/paragraph titles within the text of each Part as well as at the end of each NOTE.

CH-1 (2014) by C. F. Heard IV.

CH-2 (2017) by C. F. Heard IV.

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G-MOC PL 02-03	Policy for the Enforcement of the 1995 Amendments to the International convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 (STCW 95) on Board U.S. Flag Vessels	B1, B3, B4, B5
CG-543 PL 07-02 Encl. (1), Paragraph 13	Guidance On The Inspection, Repair And Maintenance Of Liftboats	B2.L
CG-CVC PL 12-05	Hours of Rest-Implementation of the 2010 Amendments to the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978	B5

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PART A: MARINER CREDENTIALING**CHAPTER 1: LICENSES AND CERTIFICATES OF REGISTRY - GENERAL****A. Dealing With The Public.**

The Coast Guard's policy is to treat every member of the public with the utmost courtesy and professionalism. Every U.S. mariner has personal contact with one or more Regional Examination Centers (RECs) during his/her maritime career. Often, it is the person's only contact with the Coast Guard, and they form their impression of our service based solely on that contact. Courteous, professional service will make that impression a positive one.

1. Seafarers are professionals. Inaccurate information provided by the RECs can have a damaging impact on their employment and advancement opportunities. If unsure of the regulations or policy on a particular matter, personnel should adequately research the issue before responding. Responding quickly to questions is only of value if the information is accurate.
2. Recognizing that eighty-five percent of all maritime casualties are personnel related, the Coast Guard developed the concept of Prevention through People (PTP) to focus on the human element in reducing casualties and pollution. PTP stresses safe and profitable operations based on a balanced interaction between management, work environment, technology, and human behavior backed by a solid foundation of rules, regulations, and Standards. As part of the PTP implementation, the skills that mariners need and the best means of providing those skills must be addressed beyond traditional training methods.

B. International Standards.

Title 46 CFR Part 10 is designed to closely conform to the provisions of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), 1978 as amended in 1995. The Convention was signed in June 1991 and went into effect for the United States in October 1991. The convention requires the issuance of certificates of competency to seafarers on board seagoing ships exclusive of public vessels, fishing vessels, pleasure yachts, and wooden ships of primitive build. See Chapter 9 for additional information on STCW.

C. Coast Guard Licensing Facilities.**1. Regional Examination Centers (RECs).**

- a. Licensing and certification functions are performed at 17 RECs located in the following cities:

Boston, MA	Miami, FL	Portland, OR
New York, NY	New Orleans, LA	Seattle, WA
Memphis, TN	Houston, TX	Honolulu, HI
St. Louis, MO	Toledo, OH	Juneau, AK
Baltimore, MD	Long Beach, CA	Anchorage, AK
Charleston, SC	San Francisco, CA	

- b. A basic objective of the REC concept is to make the licensing and certification transaction as simple and fast as possible while ensuring the quality, competence, and professionalism of U.S. merchant mariners. The 17 RECs directly impact the field licensing and certification functions contained in the following publications:

- (1) Code of Federal Regulations (CFR), Parts 10, 12, 13, 14, 15, and 16;
Navigation And Vessel Inspection Circulars (NVICs); and,

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(2) Commandant Instructions (COMDTINSTs), including the Marine Safety Manual (MSM).

2. Monitoring Units (MUs).

These facilities provide a limited range of services as specified by the parent REC.

<u>Monitoring Unit</u>	<u>Parent REC</u>
Hampton Roads, VA	Baltimore, MD
San Juan, PR	Miami, FL
Guam	Honolulu, HI
Ketchikan, AK	Juneau, AK

3. Traveling Examination Teams (TETs).

Traveling examination teams administer examinations to groups of applicants away from the REC. Refer to chapter 6 of this volume for specific information concerning TETs.

D. Headquarters, District, and REC Responsibilities.

Figure 1-1 presents the primary marine industry personnel functions of the local RECs, District (m) offices, National Maritime Center, and the Commandant.

E. Appeals.

Whenever an REC denies an application, the reason for denial will be set forth in writing to the applicant. The applicant will also be given a copy of the appeal rights. The applicant may submit an appeal following the procedures specified by the regulations (46 CFR 1.03). An applicant's first recourse is to request reconsideration by the Officer in Charge, Marine Inspection (OCMI).

PART A: MARINER CREDENTIALING**CHAPTER 1: LICENSES AND CERTIFICATES OF REGISTRY - GENERAL****Figure 1-1: PRIMARY MARINE INDUSTRY PERSONNEL FUNCTIONS**

<u>FUNCTIONS</u>	<u>LOCAL</u>	<u>DISTRICT</u>	<u>NATIONAL MARITIME CENTER</u>	<u>HEADQUARTERS</u>
Regulatory action regarding merchant vessel personnel.	Review all proposals and implement existing and new regulations as directed.	Review all proposals and provide comment to HQ.	Review all proposals and provide comments to HQ.	Propose, receive, and evaluate comments and draft regulations; overall management of project to completion (G-MSO).
Records for merchant vessel personnel.	Maintain all individual applicant records for licenses.	None.	Maintain Merchant Mariner License and Documentation (MMLD) system. Maintain all seaman records 1937-present.	None.
Appeals regarding licensing and certification of merchant vessel personnel.	Advise applicant (individuals or institutions) of appeal rights and procedures. Forward appeals to District with recommendation.	Appeal authority for decisions made by the local REC and OCMI. Forward appeals of district decisions to NMC with recommendation.	Final appeal authority for decisions made by the District on any appeal. Forward appeals of NMC decisions to G-MO with recommendation.	Appeal authority for decisions initially made by the NMC. (G-MO)
Appeals regarding policies and decisions originated by the NMC. This does not include appeals originating at the OCMI or District levels.	None.	None.	Advise individual or institution of appeal rights and procedures. Forward appeals to G-MO with recommendation.	Final appeal authority for policies or decisions originating at the NMC.
Appeals regarding merchant vessel manning.	Advise individuals or institutions of appeal rights and procedures. Forward appeals to District with recommendation.	Appeal authority for decisions made by the local OCMI. Forward appeals of District decisions to HQ (G-MOC) with recommendation.	None.	Final appeal authority for decisions made by the District (G-MOC).

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<u>FUNCTIONS</u>	<u>LOCAL</u>	<u>DISTRICT</u>	<u>NATIONAL MARITIME CENTER</u>	<u>HEADQUARTERS</u>
Training courses for merchant vessel personnel.	Evaluate facility and make recommendation. Approval authority for additional facilities.	None.	Establish policy regarding course approval process. Approving authority for training courses and defining approval credit (NMC).	Appeal authority for decisions made by the NMC (G-MO).
Correspondence regarding merchant personnel.	Correspond directly with members of the public. Refer appropriate correspondence to District.	Correspond directly with members of the public, industry, and joint working groups. Refer appropriate correspondence to NMC.	Corresponds with members of the public, Congress, maritime unions, and joint working groups.	Corresponds with members of the public, Congress, maritime unions, and joint working groups (G-MSO).
Liaison with international organizations, government agencies, shipping companies, unions, advisory committees, and state and federal schools regarding merchant vessel personnel.	Conduct liaison with individuals or organizations affected by the local REC operations. Contact with international organizations must be authorized by the NMC.	Conduct liaison with affected individuals or organizations within District. Contact with international organizations must be authorized by the NMC.	Liaison with international organizations government agencies, members of Congress, and state and Federal schools. Coordinate interaction with HQ.	Primary liaison with international organizations government agencies, members of Congress, and State and Federal schools (G-MSO).
Policy guidance for the merchant vessel personnel program.	Implement policy and provide feedback to district and the NMC.	Propose District policy, review promulgated NMC policy, and provide comments to NMC.	Research, propose, and promulgate policy for licensing, certification, and training.	Develops regulation and assists with the promulgation of policy for licensing, certification, and training (G-MSO).
REC operating procedures regarding merchant vessel personnel.	Conduct REC operations in accordance with District and NMC policy. Conduct all traveling exam teams (TET) functions.	Ensure uniformity of REC policy and operations within District.	Ensure uniformity of REC policy and operations nationwide.	None.

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<u>FUNCTIONS</u>	<u>LOCAL</u>	<u>DISTRICT</u>	<u>NATIONAL MARITIME CENTER</u>	<u>HEADQUARTERS</u>
Manning requirements for new and existing vessels.	Advise OCMI of manning levels of standard vessel types and make recommendations to HQ for unusual manning approvals.	Ensure uniform manning procedures conducted by units within District. Forward and endorse local recommendations to HQ.	Provide technical assistance to HQ, District, and OCMI.	Review and approve reduced manning for unique vessels and set national manning policies and standards (G-MOC).
Military and unusual service.	Evaluate in accordance with current guidelines.	None.	Establish policy and guidelines to ensure service is equivalent to merchant mariner service.	None.
Physial standards.	Evaluate applicants in accordance with current guidelines. Grant or deny hearing, eyesight, disability waivers. Forward to the NMC, waivers that require medical advice.	None.	Establish policy and guidelines. Obtain medical advice and grant or deny waivers for requests that require medical advice.	Provide professional medical review. Recommend approval/denial of physical waiver requests (CGPC-admin-1).

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<u>FUNCTIONS</u>	<u>LOCAL</u>	<u>DISTRICT</u>	<u>NATIONAL MARITIME CENTER</u>	<u>HEADQUARTERS</u>
License and certificate examination for merchant vessel personnel.	Maintain and administer examinations. Make recommendations on examination content or changes. Provide feedback to NMC.	None.	Establish policy and guidelines for content and administration of examinations. Coordinate examination development and preparation.	None.
Shipment and discharge of merchant vessel personnel.	Review and retain submitted logbooks, Provide necessary forms and answer questions regarding the shipment and discharge of merchant vessel personnel.	None.	Establish guidelines for all affected individuals and groups.	None.
Outer Continental Shelf (OCS) exemptions and citizenship requirements for employment of personnel on units engaged in OCS activities.	None.	Coordinate enforcement of citizenship requirements within District.	None.	Receive exemption requests and approve or deny request after labor survey conducted in conjunction with Department of Labor. Make determinations on applicability of OCS citizenship requirements. Coordinate requests for Presidential decisions as provided by the OCS Lands Act (G-MOC).

PART A: MARINER CREDENTIALING**CHAPTER 1: LICENSES AND CERTIFICATES OF REGISTRY - GENERAL****F. Fraudulent Applications.**

An application not completed truthfully may be considered fraudulent (see 18 U.S.C. 1001). An initial license or Certificate of Registry (COR) that was issued based upon a fraudulent application may be considered "null and void ab initio," (from the beginning) as if the license was never issued; [see Commandant Decision on Appeal 2025]. When a fraudulent application is discovered, the applicant shall be notified that the license or COR issued based upon it, is considered invalid, if it is an initial issue license. Such a license or COR shall be returned to the Coast Guard. If it is discovered that a license or COR was reissued based on a fraudulent or incomplete application, that license or COR may be "revoked" using the suspension and revocation (S & R) procedures found in 46 CFR Part 5. In such cases, the mariner must be provided with an administrative hearing where the license or COR may be revoked for misconduct based on the fraudulent application. The S & R process should also be sought when it is discovered upon reissue of a license that the applicant's original license was initially issued by fraudulent means. Licensed mariners holding second and later issuance licenses have acquired "property interest" in the license. This "property interest" is protected by the due process requirements of the Fifth and Fourteenth Amendments of the Constitution. In such cases the Coast Guard Senior Investigating Officer (SIO) shall be notified by the Chief, Regional Exam Center.

1. Fraudulent License or COR Returned.

If a fraudulently obtained license or COR is voluntarily returned, not revoked in a suspension or revocation proceeding, it shall be canceled. The applicant may re-apply by submitting a proper application. The OCMI may issue a new license or COR if the applicant meets the minimum requirements including character and habits of life. If appropriate, the OCMI may assign an "assessment period", the length of which shall be within the parameters of 46 CFR Table 10.201(h) and 46 CFR Table 10.201(i).

2. Suspension and Revocation Proceedings.

Jurisdiction for suspension and revocation proceedings exists when the possession of a certain document, COR or license is a prerequisite for the application or when an applicant is renewing a license, COR, or MMD. In such cases, the matter should be discussed with the unit's Senior Investigating Officer to determine what, if any, action is appropriate under 46 CFR Part 5.

G. Determining Eligibility.

All applicants must, to the satisfaction of the OCMI, possess all the qualifications necessary for the license or COR.

1. License and Renewal Application.

Every mariner seeking an original license or certificate, raise in grade, renewal, increase in scope, or other endorsement shall complete an application form. The applicant must prepare the application form and conduct whatever research is necessary. An application shall not be accepted until it is complete.

PART A: MARINER CREDENTIALING**CHAPTER 1: LICENSES AND CERTIFICATES OF REGISTRY - GENERAL**

- a. Changes To An Application.

Any changes to an application should be made and initialed by the applicant. If this is not feasible due to mailing problems or if corrections are made by REC personnel, REC personnel should initial the changes. Items that do not apply should be marked "Not applicable" or "N/A."
 - b. Character Record.

As per 46 CFR 10.201(h), every applicant must mark the proper "yes" or "no" box for the convictions and usage of narcotics questions and initial the answer. Chapter 3 of this volume gives specific guidance for evaluating character.
 - c. Character References.

Character references are required for all original licenses and CORs. For many licenses, 46 CFR 10.205(f)(1) identifies from whom an applicant must have recommendations. Letters must have original signatures. However, they need not be notarized.
 - d. Signing Applications.

Evaluators should endeavor to verify the identity of the person signing an application by reasonable means. There is no requirement that a signature must be notarized.
 - e. Listing Sea Service.

Applicants must provide all the information requested when listing sea service on the appropriate section of the application. In the event that the gross tonnage is not available (as for public vessels), the displacement tonnage should be provided. The proper information is often obtainable from the Marine Safety Information System (MSIS), or other authoritative sources.
2. Processing Applications.

As stated in 46 CFR 10.202(a), an application will remain valid for one year from the date it is approved. An approved application shall contain all the paperwork and service required by law or regulation. Qualifying factors such as recency, physical examination, drug test, required training, etc. will be considered valid as long as the application is valid. Applicants should meet all eligibility requirements for a license before sitting for the examination. (OCMIs may make an exception and allow applicant's to examine for the license or document, if the applicant is in need of firefighting and/or radar training. Applicants that are never able to pass the examination would lose a considerable amount of money having already obtained this relatively expensive training.)

 - a. Seaman Locator and Wanted Lists.

Every license or COR transaction should include a check of the Locator and Wanted Lists. If the applicant is listed, the command that made the entry on the list must be notified immediately.

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- b. National Driver's Register (NDR) Check.
All applicants for any transaction involving a license must sign the NDR release section of the application (CG-719b).

- c. Drug Use and Convictions.
Title 46 U.S.C. 7503 gives the Coast Guard authority to deny a license, or a certificate of registry or MMD to an individual who has been convicted of violating a dangerous drug law of the United States or of a State. This section also allows the Coast Guard to deny a license, COR or MMD to an individual who has been a user of, or addicted to, dangerous drugs, who has not proven cure. Military non-judicial punishment is not considered to be a conviction. However, a special or general courts-martial is to be considered a conviction. A discharge from military service as the result of drug use should be considered as a history of drug use, but not as a drug conviction. See Chapter 3 of this volume for guidance on evaluating cases involving illegal drugs.

- d. Required Training.
 - (1) Firefighting. Only training courses approved by the Coast Guard can be used to meet the requirement for firefighting training. Military or foreign firefighting training may not be substituted unless it is Coast Guard approved.

 - (2) Cardiopulmonary Resuscitation and First Aid. Acceptable training is listed in 46 CFR 10.205(h). Medical doctors, registered nurses, and licensed physician assistants (not all states have licensed physician assistants) need not take the courses if they have had training in emergency medicine. Emergency Medical Technicians need not take the courses.

 - (3) Radar Observer. Only training courses approved by the Coast Guard can be used to meet the requirement for radar observer training. Military or foreign radar observer training may not be substituted unless it has C.G. approval.

 - (4) STCW. Certain license applicants must comply with STCW requirements. See applicable NVICs and policy.

- e. Minimum Age.
46 CFR 10.201(f) contains the minimum age requirements for issuance of any license including radio or staff officers. The only license, for which the OCMI has the discretion to lower the age requirement, is operator of uninspected passenger vessels. See 46 CFR 10.202(h).

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Applicants must present documentation of their service when making application. The OCMI must be satisfied that the documentation is authentic and may make inquiries to verify any documentation considered suspect. If documentation is in the form of a letter from an employer, only original letters (not photocopies) on company letterhead should be accepted. Chapter 2 of this volume discusses documenting military service. Chapters 10 and 13 discuss self certification of service for masters, mates and operators of uninspected passenger vessel licenses respectively.

b. Age Considerations.

Neither the law, nor regulations specify a minimum age for accepting service as creditable. However, the regulations are clear that applicants must satisfy the OCMI that they possess all the qualifications necessary for a license. Certainly the age at which the majority of the service was obtained should be part of the OCMI's evaluation. Each application must be evaluated on its own merit.

c. Time and A Half Credit.

OCMIs should be cautious when giving time and a half credit for service submitted for evaluation. See chapter 2 of this manual for a discussion of when time and a half credit is appropriate.

d. Recency of Experience.

46 CFR 10.202(e) requires three months qualifying service on vessels of appropriate tonnage (deck licenses) or horsepower (engineer licenses) within the three years preceding the license application. There is no time limit in which the remaining qualifying service may have been completed.

(1) Tonnage/Horsepower of Recent Service. The regulations specify the tonnage or horsepower of qualifying experience for various licenses. Apply the same rules to the required recent service. For example, to qualify as Third Mate, any gross tons (GT), an applicant must have all of their experience on vessels over 200 GT with at least half of that time on vessels over 1600 GT. This also applies to the recency requirement where all of the recent experience must be on vessels over 200 GT with at least half of that time (45 days) on vessels over 1600 GT.

(2) Nature of Recent Service. Only actual underway time may be used to satisfy recency requirements. Underway service completed as part of an approved course is acceptable. Simulator training may not satisfy recency requirements. Such underway service is noted on the approved course list (also see 46 CFR 10.304(b) r (d)).

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- e. Special Limitations.

When an REC intends to issue a license with a limited route or other special limitations, the OCMI for the inspection zone that covers the intended area of operation shall be consulted. The local OCMI will generally have better on-scene experience and knowledge of the hazards and operating conditions involved. Likewise, the local OCMI will make the determination as to what is considered to be a formal camp, as referred to in 46 CFR 10.429, 10.456 and 10.466(g). Factors to be considered by the OCMI when issuing this designation include the number of personnel involved in the operation, the safety procedures followed during normal operations, the structure of the organization, the number of times the operation takes place and any other factors the OCMI feels are relevant to the determination.
- f. Removing Special Limitations.

An REC shall not remove special limitations, such as those discussed in the preceding paragraph, which were placed on a license by another REC without consulting that REC.
- g. Foreign Sea Service.

Experience or service acquired on foreign vessels is creditable, subject to evaluation by the OCMI. It must be a fair and reasonable equivalent to service acquired on merchant vessels of the United States with respect to grade, tonnage, horsepower, waters and operating conditions. An applicant who has obtained qualifying experience on foreign vessels shall submit satisfactory documentary evidence of such service (including any necessary translation into English) in a form that satisfies the OCMI as to the authenticity of the service. An original license or certificate of registry shall not be issued to any naturalized citizen on less experience in any grade of capacity than would have been required of a United States citizen by birth. Also, a U.S. license will not be issued in a grade higher than that upon which he or she has actually served while acting under the authority of a foreign license or in a higher grade than the foreign license the applicant holds.
4. Citizenship.

No certificate of registry of license other than Operator of Uninspected Passenger Vessels (OUPV) may be issued to anyone who is not a citizen of the United States. OUPV licenses issued to non-U.S. Citizens must be limited to uninspected vessels not documented under the laws of the United States. Refer to the non-citizen notation in section "P.8" of this chapter for the proper wording. 46 CFR 10.205(c) discusses proof of citizenship.
5. Chemical Testing for Dangerous Drugs.

All applications for licenses or CORs, except those found in 1.G.5.c of this volume, including requests for license upgrades or renewals must be accompanied by proof that the individual is free of dangerous drugs. The "Dangerous drugs" tested for under the DOT rules are: marijuana, cocaine, opiates, phencyclidine (PCP) and amphetamines. A positive test for some other drug may not be grounds for denial of a license under the drug test

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regulations. (Applicants that may use or be addicted to other drugs should have their character and habits of life evaluated under the guidelines in chapter 3). Drug tests are valid for six months from the date the sample was taken.

a. Approved Drug Testing Laboratories.

All tests, except those done for active duty military personnel, must be done by laboratories certified by the Substance Abuse and Mental Health Services Administration (SAMHSA), an agency of the Department of Health and Human Services (DHHS). Tests done by Department of Defense (DOD) approved laboratories are only acceptable for active duty military personnel.

- (1) SAMHSA, DHHS Labs. SAMHSA, DHHS approved labs are listed in the Federal Register during the first week of each month. It is not uncommon for a lab to lose its SAMHSA, DHHS approval. RECs should keep the lists for six months and refer to the proper one to verify the lab was approved at the time the test was done. Verification of current SAMHSA, DHHS approval can also be made by calling their Drug Free Workplace Hotline, 1-800-843-4971.
- (2) DOD Labs. According to the Office of the DOD Coordinator for Drug Enforcement Policy and, only active duty status military personnel can be tested at DOD approved drug testing laboratories. For a current listing of DOD approved laboratories or any questions regarding these labs, contact NMC-4C.

b. Acceptable Proof of Drug Tests.

Acceptable evidence that an applicant has passed a required drug test is listed below. The evidence described in paragraphs (1) through (6) may be accepted by fax from the originator and RECs may verify the authenticity by calling the source. A fax copy hand carried by an applicant is not acceptable.

- (1) A completed drug test form (report or letter) signed by the medical review officer (MRO) or authorized representative of a consortium showing the applicant has passed a chemical test for dangerous drugs conducted in accordance with 49 CFR 40 within the previous six months.
- (2) A letter on company or consortium stationary signed by an authorized official that administers the drug testing program stating that the applicant passed a test for dangerous drugs within the previous six months with no subsequent positive drug tests during the remainder of the six month period.
- (3) A letter on company or consortium stationary, signed by an authorized official that administers the drug testing program, stating that the applicant has been subject to random drug testing for at least 60 days during the previous 185 days, has not failed any tests, and has not refused to participate in any required test.

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- (4) For military members, active duty or reserve, a letter from the applicant's command stating that the applicant has passed a required chemical test for dangerous drugs within the previous six months.
- (5) For active duty military members, a letter from the applicant's command stating that the applicant has been subject to random drug testing for the past six months and has not failed any tests. Being subject to random testing is not accepted for reserve military members.
- (6) By current law, civilian government mariners are not required to provide positive drug test results to another government agency. This includes the Coast Guard. For licensed civilian government mariners of the Military Sealift Command, U.S. Army Corps of Engineers, and National Oceanic and Atmospheric Administration, RECs may accept a letter from the applicant's command/headquarters/home office as proof that the mariner has been enrolled in a bona fide drug testing program and has been subject to random drug testing for at least 60 days during the previous 185 days. The letter shall also certify that the mariner has not failed or refused participation in a chemical test for dangerous drugs. See 46 CFR 16.210(b)(2).

c. License Transactions Which Do Not Require Drug Tests.

Currently, license transactions that do not require a drug test are those involving the following: inactive renewal, issuance of a duplicate license or COR or obtaining endorsements such as assistance towing, auxiliary sail, tonnage increase, horsepower increase, route increase or adding a lesser license to an existing license.

d. Positive Results From Drug Tests.

Positive results from a test for dangerous drugs for a holder of a license, COR or MMD should be immediately reported to the Senior Investigating Officer for investigation.

H. Issuance Of Licenses Or Certificates Of Registry (COR).

A person who meets all the requirements of the regulations is issued an appropriate license or COR valid for a term of five years. If the status of a foreign national changes while holding a license, the license is no longer valid. For other exceptions see 46 U.S.C. 7106 and 46 U.S.C. 7107.

1. Preparation Of Licenses and CORs.

Licenses and CORs shall be typed. There shall be no erasures or whiteouts. Female licensees shall be accommodated when requesting the printed "HE" be crossed out and "SHE" typed onto their license or COR while it is being prepared. Unused words or spaces and unused lines on the face of a license or COR shall be lined out to prevent improper additions. If the license description is too long to fit on the face of the form, the last line on the face shall end with "(continued on reverse)." Endorsements added to a current license, are put on the back of the license form. Unused space on the back of the license form shall

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not be lined out, so that further endorsements can be added. Endorsements and license descriptions continued from the face shall end with the signature of the issuing officer. All issuing officer signatures shall be impressed with the Coast Guard seal. A license or COR recipient shall sign the back of the license or COR where indicated. There is no requirement to put a thumb print on a license or COR.

2. Citizenship.

U.S. Citizenship is required for all licenses and CORs except for an operator of an undocumented, uninspected passenger vessel (OUPV) as noted in 46 CFR 10.201(e). However, there are certain circumstances where a limited scope license may be issued to a non-U.S. citizen. Such cases should be referred to the NMC.

a. Verification Of Citizenship.

Acceptable evidence of citizenship is listed in 46 CFR 10.205(c). Evidence of citizenship must be an original document or a copy certified by the agency that issued the original. The OCMI may reject any evidence of citizenship that is not believed to be authentic. A provision for acceptance of a delayed certificate of birth is found in 46 CFR 10.205(c)(1)(vii). Some states issue delayed certificates of birth that do not indicate the evidence upon which they were granted. The Commandant considers such a certificate to be acceptable provided it is issued under a state seal.

b. Evidence Of Citizenship To Be Noted On Licenses and CORs.

When a license or COR is issued, the reverse shall note the evidence of citizenship presented within the operational parameters of MMLD.

3. Name Changes.

When the name that an applicant uses is different from what appears on the proof of citizenship, the applicant must show that the name has been legally changed. Certified copies of a court order or other official document, such as a marriage license, effecting a name change must be presented. Without this documentation, the name on the proof of citizenship must be used.

4. Social Security Numbers.

Each license or COR must show the applicant's social security number on the line for "2 or Book Number" if it is different from the MMD or Book Number or if the applicant does not hold an MMD or continuous discharge book. A social security card is not required; however, applicants for an original license must present satisfactory evidence of their social security number. Accurate numbers are essential since the license, COR and MMD records are all keyed to social security numbers.

5. Issue Numbers.

Issue numbers for all licenses are now a single number. The issue number shows how many licenses of that group have been issued to the mariner. Licensed groups are listed in section N. of this chapter. Previously, deck, engineer and OUTV licenses had two part

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issue numbers. The first number indicated the number of licenses that had been issued to the holder in that grade. The second number indicated the total number of licenses in all grades of that group that had been issued to the mariner. For instance, if a second mate's license has an issue number of 3-5, it is the third second mate license and the fifth deck license. When that license is renewed or raised in grade, the issue number will be -6-. OCMI's may issue a license with a two part issue number if a mariner specifically requests it.

6. Oaths.

Whenever an original license or COR is issued, 46 U.S.C. 7105 requires the applicant to take the oath in section VII of the license application form. The penalty for willfully and knowingly making false statements is contained in 18 U.S.C. 1001.

a. Oaths For Renewals.

The oath is not required for license or COR renewals because the oath taken for the original license or COR is considered to remain in effect until it is renounced in writing to the OCMI by the license holder.

b. Authority To Administer Oaths.

Commissioned and warrant officers assigned to REC duty are authorized by the Commandant under 14 U.S.C. 636 to administer all oaths required by law in the licensing and certification of merchant mariners. In such cases, officers shall use their military rank, rather than signing "for the OCMI." Civilians and other designated representatives may also administer the oath with written authorization from the OCMI. When an applicant is not appearing in person, the oath must be administered and verified by a certified notary public and signed by the applicant. RECs shall ensure that oaths are signed and properly witnessed.

7. Fingerprints.

Applicants for an original Coast Guard license or COR will have their fingerprints taken and sent to Commanding Officer, National Maritime Center (NMC-4A), for an FBI criminal history evaluation. See chapter 8 for exceptions and instructions for preparing fingerprint cards.

8. License Signatures.

All licenses and CORs are to be signed by the OCMI. Additions made on the reverse of licenses must also be signed by the OCMI. The OCMI may designate officers, warrant officers, and civilians of their staffs to sign Coast Guard licenses, certificates of registry, and seaman's documents, "By direction." Authorization to sign by direction shall be by letter of designation from the OCMI.

9. Coast Guard Seal.

Each signature of the OCMI or OCMI designee on the face or reverse of a license or COR shall be impressed with the Coast Guard seal.

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When a new license or COR is issued to replace an unexpired license or COR, the old one will be stamped "canceled" on the back. Expired licenses do not need to be canceled. Canceled or expired licenses or CORs may be returned to the holder. If the holder does not want the old license or COR, it shall be placed in the mariner's file.

11. Acknowledgments Upon Receiving Licenses and CORs.

To help eliminate misunderstandings, mariners should verbally acknowledge the following when they receive their license or COR.

- a. The expiration date.
- b. That it has no authority beyond the expiration date.
- c. It is solely the mariner's responsibility to renew it.
- d. There will be additional requirements for licenses that are expired for over one year and,
- e. That if a radar observer is normally needed, but was not renewed, an acknowledgment that the holder may not serve under the license on radar equipped vessels of 300 GT or over, or radar equipped uninspected towing vessels of at least 26 feet length.

I. License and COR Renewals.

Every applicant for renewal of a license or COR shall submit an application form. The completed form is retained in the applicant's file at the REC that issues the renewed license or COR. The applicant shall furnish all information required by the form. The sea service section and employment/training blocks shall be completed for all license renewal applications.

1. Professional Requirements For Renewal.

Applicants must prove they possess all the requirements for renewal. Sea service shall be verified by certificates of discharge and where appropriate, letters of service. Employment closely related to the operation, construction or repair of vessels shall be verified by a letter from the employer. Applicants who can not or do not meet the professional requirements for renewal may renew for continuity purposes.

2. File Verification.

Mariners may have their license or COR renewed at any REC. If only a copy of the license is submitted and the license file is located at another REC, a phone call or E-mail verification of the license is required. When licenses or CORs are renewed, applicants should be asked where they would like their files maintained.

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Mariners that submit renewal applications by mail do not need to have their signatures notarized. Sighting the original license or COR or verifying the file should be sufficient to ensure the validity of the application.

4. Verification Of Pilot's Endorsements.

When RECs renew a license with pilotage routes for another REC's zone, they must contact the appropriate REC by phone or E-mail to ensure that the route descriptions are still correct.

5. Licenses With Waivers.

When a license with a waiver is renewed, the waived condition must be reevaluated by the level of authority (REC or NMC) that approved the waiver.

6. Denial Of Renewal Application.

No license or COR shall be renewed if title to it has been forfeited or if facts that render renewal improper come to the attention of the Coast Guard. Refer to chapter 3 for guidance on evaluating character and living habits and chapter 4 for guidance on evaluating physical conditions. Applicants may submit statements or evidence in their behalf with their applications. Whenever applications are denied, applicants must be advised of their appeal rights. (See section 1.E.)

J. Duplicate Licenses Or CORs.

A duplicate license or COR can be issued to replace a lost or mutilated license or COR. Mutilated licenses and CORs shall be canceled when a duplicate is issued.

1. Preparing Duplicate Licenses and CORs.

The issue number and date of the duplicate shall be the same as on the license or COR being replaced. That it is a duplicate shall be noted on the bottom of the license or COR face with the wording "This license (or certificate) replaces license (or certificate) number (NO.) issued at GREC NAME) on the above date."

2. Lost and Recovered Licenses and CORs.

The OCMI is required to report the loss, theft, or recovery of any license or COR to the Commandant. The letter of transmittal shall contain all the facts incidental to the recovery. A copy of this letter shall be forwarded to Commandant, (NMC-4C). [Note: This policy does not apply to licenses or CORs held pending completion of disciplinary action, as is the case of a license turned in by the master of a vessel for failure to join, or desertion.] Any license or COR that is turned over to the OCMI or otherwise recovered shall be forwarded to the issuing REC. If a license re-issue has already occurred, the recovered license shall be voided out.

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K. Reissuing Revoked Or Surrendered Licenses and CORs.

1. Form.

A license or COR restored after surrender or revocation shall be issued as a duplicate issue if within the five-year term of the revoked or surrendered license or COR; otherwise it will be issued as a renewed license or COR,

2. Requirements.

- a. If an individual is granted administrative clemency within five years of issuance of the revoked or surrendered license, there are no requirements other than submitting, an application.
- b. If administrative clemency is granted between five and six years after the license was issued (during the grace period), the application shall be treated in the same way as any renewal during the grace period.
- c. If administrative clemency is granted more than six years after the license was issued, the application will be treated in the same way as any renewal beyond the grace period.

L. Issuing Temporary Licenses.

Mariners that have had their license, COR or document revoked or suspended and are appealing that decision, may request temporary credentials. 46 CFR 5.707 governs issuance of temporary credentials. Upon presentation of an order for a temporary license or other credential from an administrative law judge or the Commandant, the OCMI will issue credentials in accordance with the order. A temporary credential will be valid for six months or upon service of the Commandant's decision on appeal, whichever occurs first. If it expires before the Commandant renders a decision on an appeal, it may be renewed if authorized by the Commandant. 46 CFR 5.715 governs issuance of credentials when appeals are made to the National Transportation Safety Board. Requests for temporary credentials are handled similarly except that the Commandant (G-MOA) will issue the order and the temporary credentials may be renewed for additional periods without special authorization. Temporary licenses and CORs will be numbered in the same way as duplicate licenses or CORs. Refer to section P.7. for the notation to be placed on temporary licenses and CORs. Refer to sections 2.H.6., and 2.H.7. of Volume V of this manual for additional information.

M. Raises Of Grade and Endorsements.

"Endorsement" and "raise of grade" are both defined in the regulations. Interpreting the definitions however, is not always an easy matter. The definition of "endorsement" contains an example of a license within the same general tonnage category but "tonnage category" is not defined. Based on the evaluation and testing required to obtain each deck license, there are in practice, four tonnage categories:

1. Upper level,
2. Lower level over 1600 tons,

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3. Lower level not more than 1600 tons but over 200 tons, and
4. Lower level not more than 200 tons.

There are only two categories of engineer licenses; upper level and lower level. A license in one category is distinct from a license in another. For example, an unlimited ocean master's license is not merely a 100 ton master's license with a different route and a different tonnage limit. It is a completely different license with wholly different capabilities and responsibilities associated with it. The different experience, training, and knowledge requirements for the licenses reflect those differences. Refer to Figures 1-2 and 1-3 for assistance in determining if an applicant is obtaining an endorsement or a raise of grade. Apply that determination for the entire licensing process; determining professional requirements, applying user fees, and issuing a new license or endorsement.

1. Raises Of Grade.

Advancing to a higher level of authority (e.g., mate to master, assistant engineer to chief engineer) is always a raise of grade. Advancing to a higher category license (e.g., master 1600 to third mate-unlimited, master 200 to mate 500, or chief engineer (limited-oceans) to second assistant) is always a raise of grade.

2. Issuing Raises Of Grade.

The existing license will be withdrawn and canceled. A new license will be reflecting the raise of grade and new expiration date. This is true even if the raise of grade is not for the highest license on the form. (EXAMPLE: A mariner licensed as master 1600 GT and second mate, raises the grade of the second mate to chief mate. A new license, valid for five years, is issued as master 1600 GT and chief mate.) By obtaining a raise of grade, an applicant has essentially fulfilled all the requirements for a renewal and the entire license should therefore be issued for five more years.

3. Endorsements.

An "endorsement" is a provision added to a license or COR that alters its scope or application. Adding an endorsement of any type does not extend the life of the license or COR. Examples of endorsements are: a tonnage limitation increase within a general tonnage category, a route increase, or a radar observer qualification.

4. Issuing Endorsements.

Endorsements are added to the reverse of existing licenses. They do not extend the life of the license. To avoid confusion, especially with radar observer endorsements that expire independently of the license, each endorsement added to a license should end with the expiration date of the license, "(License expires //)." The words "See reverse" should be added to the front of the license.

5. Additional License Authority.

Some licenses do not fit neatly into the ranking of license seniority. An example would be a 200 ton master obtaining an OUTV license. The two licenses require different types and amounts of qualifying service, different examinations and each authorize the license

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holder to serve on vessels that the other license would not. Figures 1-2 and 1-3 classify cases involving no clear seniority as "Additional License Authority." These are instances where the regulations, license qualification requirements, examination requirements, nor the license authority indicate a relative seniority of licenses. These licenses, while not actually a raise of grade, should be handled as such since the service and examination requirements justify issuing a new license valid for five years.

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Figure 1-2: DECK LICENSE GRADES AND ENDORSEMENTS

LICENSE HELD	Upper level				Lower Level														Tonnage Endorsements								
	Master	Chief Mate	2nd Mate	3rd Mate	Master S&M	Mate S&M	Master UFIV	Mate UFIV	First Class Pilot	OIM Unrestricted	OIM Surf U/W	OIM Surf on Loc	OIM Bottom U/W	OIM Bottom on Loc	Barge Supervisor	Ballast Control Op	OUTV	2/c OUTV	OUPV	Assistance Towing	Route Increase	Tonnage Increase >1600 Tons	Tonnage Increase >200 Tons ≤ 1600	Tonnage Increase ≤ 200 Tons	Radar Observer	Self Endorsement	
UPPER LEVEL																											
Master									E	E	E	E	E	E	E	E	E	E									
Chief Mate	R				R	R		E	E	E	E	E	E	E	E	E	E	E									
2nd Mate		R			R	R		E	E	E	E	E	E	E	E	E	E	E									
3rd Mate			R		R	R		E	E	E	E	E	E	E	E	E	E	E									
LOWER LEVEL > 200 Tons																											
Master S&M			R	R				E	E	R ¹	E	E	E	E	E	E	E	E	E			E	R ¹	E	E	E	
Mate S&M				R	R		R	E	R ¹	E	E	E	E	E	E	E	E	E	E			E	R ¹	E	E	E	
Master UFIV			R	R	E	E				R	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	
Mate UFIV				R	R	E	R			R	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	
First Class Pilot				R	R	E		E			E	E	E	E	E	E	E	E	E	E	E	E				E	
OIM Unrestricted				R		R	R										R	R	R								
OIM Surf. U/W				R		R	R			E	E	E	E				R	R	R								
OIM Surf. on Loc.				R		R	R			E	E	E	E				R	R	R								
OIM Bottom U/W				R		R	R			E	E	E	E				R	R	R	E							
OIM Bottom on Loc.				R		R	R			E	E	E	E				R	R	R	E							
Barge Supervisor				R		R	R			R	R	R	R	R			R	R	R	E							
Ballast Control Op.				R		R	R								R		R	R	R	E							
LOWER LEVEL ≤ 200 Tons																											
OUTV				R	R	R	R	R	R	R	R	R	R	R	R	R			E		E					E	
2/c OUTV				R	R	R		R	R	R	R	R	R	R	R	R	R		E		E					E	
Master S&M				R				R									R	R	E	E	E		R	E	E	E	
Mate S&M				R	R			R									R	R	E	E	E		R	E	E	E	
OUPV				R	R	R		R	R	R	R	R	R	R	R		R		E	E						E	

E = Endorsement R = Raise of Grade 1 = Endorsement if License Held is > 1600 Tons

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Figure 1-3: ENGINEER LICENSE GRADES AND ENDORSEMENTS

LICENSE HELD	LICENSE APPLIED FOR															
	Chief Engineer	First Assistant	Second Assistant	Third Assistant	MODE Addition	HP Increase	C/E LTD - Oceans	A/E LTD - Oceans	C/E LTD - N/C	C/E UFIV	A/E UFIV	C/E MODU	A/E MODU	DDE	MODE Addition	HP Increase
UPPER LEVEL																
Chief Engineer					E	E										
First Assistant	R				E	E	R		R	R		R		E		
Second Assistant		R			E	E	R		R	R		R		E		
Third Assistant			R		E	E	R		R	R		R		E		
LOWER LEVEL																
C/E LTD - Oceans			R							E	E	E	E	E	E	E
A/E LTD - Oceans							R		R	R	E	R	E	E	E	E
C/E LTD - N/C				R			E	E		E	E	E	E	E	E	E
C/E UFIV	R	R	R	R		E	E	E	E			E	E	E		E
A/E UFIV						E	R	E	R	R		R	E	E		E
C/E MODU			R	R			E	E	E	E	E			E		
A/E MODU			R	R				E	R	R	E	R		E		
DDE				R			R	E	R	R	E	R	E		E	E

E = Endorsement R = Raise of Grade

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The following license groups have been established for the issuance of licenses.

1. Group A. Deck officer licenses
2. Group B. Engineer officer licenses
3. Group C. Radio officer licenses
4. Group D. Operator of uninspected passenger vessel licenses
5. Group E. Operator of uninspected towing vessel licenses

O. Combining Licenses.

Since there is a fee for each license form issued, mariners may, in some cases, have licenses from different groups put on the same license form. As an example:

1. An engineer holds first assistant steam and second assistant motor, these two licenses may be combined into one. Designated Duty Engineers (DDE) may be added to any engineer license.
2. A license in any lower grade may be added to a higher grade in the same group
3. A license as pilot may be added to any existing deck license or to a license as Operator, Uninspected Towing Vessels.
4. Operator, Uninspected Towing Vessels may be added to any master or mate license.
5. No license may be added to an Operator, Uninspected Passenger Vessel (OUPV) license. An OUPV license may only have an increase in scope to operate in another geographic area or assistance towing added to it. If the holder of an OUPV license qualifies for any other license, a separate license reflecting the other qualifications is issued. The OUPV license may be canceled and the OUPV authority added to a deck license.
6. Radio officers who qualify for any other license are issued a separate license to show the additional qualifications. Other qualifications are never added to a radio officer license.

P. Notations and Limitations.

The following notations or limitations will be placed on licenses when appropriate. Except for the COLREGS, color blindness, non-citizen, temporary license and Boy Scout/Sea Explorer notations, they shall be on the reverse side. When there are limitations or notations on the reverse of a license, "See reverse" shall be put on the face of the license form following the license description.

1. Corrective Lenses.

Applicants who must wear corrective lenses under 46 CFR 10.202(f) shall have the following notation on their license: "Corrective lenses to be worn with spare glasses carried on board."

2. Vision Waiver.

Applicants granted a vision waiver under 46 CFR 10.205(d)(4) shall have the following notation on their license: "Vision Waiver - Corrective lenses to be worn with spare glasses carried on board."

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Applicants granted a physical waiver under 46 CFR 10.205(d)(4) shall have the following notation on their license: "Physical Waiver -- Report any change in the waived condition to the issuing office within 30 days." If the Commandant's letter granting the waiver includes any special conditions or requirements, they shall be noted as well.

4. Hearing Waiver.

Applicants granted a hearing waiver under 46 CFR 10.205(d)(4) shall have the following notation on their license: "Hearing Waiver." If the waiver requires that a hearing aid be worn the notation shall be: "Hearing Waiver -- Hearing aid(s) to be worn with spare batteries carried on board."

5. Color Blindness.

Certain applicants such as Masters, mates, pilots or operators of vessels up to 100 GT or OUTV on river routes, who do not meet the color sense requirements may be issued a restricted license. These licenses shall have the following notation on the front of the license: "Limited to daylight hours only."

6. Continuity Renewal Notations.

Licenses renewed for continuity purposes under 46 CFR 10.209, shall have the following notation: "License renewed for continuity purposes only; service under the authority of this license is prohibited." If all the requirements to renew the license are later met, the following notation shall be added: "All renewal requirements met; service under the authority of the license is permitted."

7. Temporary License Or COR Notation.

Temporary licenses issued to mariners appealing their suspension or revocation shall have any text describing a five year term of validity lined out. Beneath the line showing the date the license or COR was issued, add the notation, "Temporary license (or certificate) issued under 46 CFR 5.707 (or 5.715) to expire in accordance with present regulations or upon service of the Commandant's (or NTSB's) decision on appeal, whichever occurs first. Replaces license (or certificate) # issued at on _."

8. Non-Citizen Notation.

Operator of uninspected passenger vessel licenses issued to non-U.S. citizens as allowed by 46 CFR 10.201(e) shall have the following restriction added to the vessel description on the face of the license: "...limited to uninspected vessels not documented under the laws of the United States."

9. COLREG Notation.

There are some inland waters where the 72 COLREGS apply. Therefore licenses issued to masters, mates, pilots and operators with rivers or inland waters routes that have not been tested on both Inland Rules and COLREGS shall have the following notation added to the route: "...excepting waters subject to the International Regulations for Preventing Collisions at Sea, 1972." The notation need not be added if the route already precludes

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operation on COLREGS waters. [EXAMPLES: pilot licenses with routes that do not include COLREGS waters; operator licenses limited to a summer camp or marina.]

10. OUTV Oral Examination Notation.

If an OUTV was administered by an oral examination due to an inability to read as discussed in section 13.B.4, the license shall have the following notation: "Transportation of barges carrying dangerous cargo regulated under 46 CFR Subchapter 0 is prohibited."

11. Licenses Limited To Boy Scout/Sea Explorer Vessels.

The Inspection and Certification Agreement dated October 1, 1979 between the Coast Guard and the Boy Scouts of America has been canceled. Reference should be made to Navigation and Vessel Inspection Circular (NVIC) 7-94 "Guidance on the Passenger Vessel Safety Act of 1993", regarding the definition of "Passenger" and "Passenger for Hire". If a vessel owned and operated by the Boy Scouts or Sea Explorers is carrying only scouts, the scouts are considered "passengers" and not "passengers for hire". Such a vessel is not required to be Coast Guard inspected nor is the operator of the vessel required to be licensed by the Coast Guard. However, if the Boy Scouts of America or Sea Explorers charter a vessel (demise or non-demise charter) for their use, the inspection/licensing requirements may change accordingly; (See NVIC 7-94).

Q. Wording Of Licenses.

1. Master Licenses.

Upper level masters without tonnage limitations will have their licenses issued on form CG-5205, License for Master, unless they specifically request form CG-2849, License for Merchant Marine Officer, be used. Prepare form CG-5205, License for Master, in the following manner.

- a. On the blank line list any other authorities held;
- b. List the radar observer endorsement;
- c. Some examples of license descriptions are:

(1) "MASTER OF STEAM OR MOTOR VESSELS OF ANY GROSS TONS UPON OCEANS; RADAR OBSERVER (UNLIMITED) EXPIRES APRIL 2003."

(2) "MASTER OF STEAM OR MOTOR VESSELS OF ANY GROSS TONS UPON OCEANS; BALLAST CONTROL OFFICER; RADAR OBSERVER (UNLIMITED) EXPIRES AUGUST 2003."

2. Deck Officer Licenses.

For deck officers, prepare form CG-2849, License For Merchant Marine Officer, in the following manner.

- a. List the grade, for example, "MASTER," "THIRD MATE," "MATE," "OFFSHORE INSTALLATION MANAGER"; then,
- b. State the propulsion mode or other appropriate vessel description, for example, "STEAM OR MOTOR," "STEAM, MOTOR OR SAIL," "BOTTOM BEARING UNITS ON LOCATION"; then,

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- c. State the tonnage limitation, for example, "OF ANY GROSS TONS" or "OF NOT MORE THAN 4000 GROSS TONS"; then,
 - d. State the type of waters, for example, "OCEAN" or "NEAR COASTAL", "GREAT LAKES AND INLAND"; then
 - e. List any additional license authorities. Any license as master takes precedence over any other grade and therefore will always be listed first on the face of the license; then
 - f. List the radar observer endorsement.
 - g. Some examples of license descriptions are:
 - (1) "CHIEF MATE OF STEAM OR MOTOR VESSELS OF ANY GROSS TONS UPON NEAR COASTAL WATERS; RADAR OBSERVER (UNLIMITED) EXPIRES OCTOBER 2003. ";
 - (2) "MATE OF STEAM OR MOTOR VESSELS OF NOT MORE THAN 1600 GROSS TONS UPON NEAR COASTAL WATERS; RADAR OBSERVER (UNLIMITED) EXPIRES DECEMBER 2003. ";
 - (3) "MASTER OF STEAM OR MOTOR VESSELS OF NOT MORE THAN 100 GROSS TONS UPON NEAR COASTAL WATERS. "FOR DOMESTIC VOYAGES ONLY, THE HOLDER OF THIS LICENSE MEETS THE STCW 1995 REGULATIONS WITHOUT FURTHER ENDORSEMENT.";
 - (4) "MASTER OF STEAM OR MOTOR VESSELS OF ANY GROSS TONS UPON GREAT LAKES AND INLAND WATERS; RADAR OBSERVER (UNLIMITED) EXPIRES MARCH 2003.";
 - (5) "MASTER OF STEAM OR MOTOR VESSELS OF NOT MORE THAN 500 GROSS TONS UPON NEAR COASTAL WATERS; THIRD MATE OF STEAM OR MOTOR VESSELS OF ANY GROSS TONS UPON OCEANS; RADAR OBSERVER (UNLIMITED) EXPIRES SEPTEMBER 2003."
3. First Class Pilot Licenses.
 Each license description or endorsement specifically authorizes an individual to serve as first class pilot upon a specific body of water (or waters as the case may be) aboard a particular type of vessel (with appropriate tonnage limitations if applicable). Consequently, each license description or endorsement must be complete in itself and written in a manner that is both concise and accurate. For first class pilots, prepare form CG-2849, License For Merchant Marine Officer, in the following manner.
- a. State the grade, which will always be "FIRST CLASS PILOT," then
 - b. The license shall state "OF VESSELS," in lieu of "STEAM OR MOTOR" however, "OF TUG AND BARGE COMBINATIONS" may sometimes be appropriate, then
 - c. State the tonnage limit for the route, then
 - d. Describe the route. If the type of vessel and tonnage limit is the same for all routes, list all the routes one after another. If the vessel type or tonnage limit is not the same for all routes, that information must precede the appropriate routes.

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- e. List the radar observer endorsement.
 - f. Some examples of license descriptions are:
 - (1) "FIRST CLASS PILOT OF VESSELS OF ANY GROSS TONS UPON NEW YORK HARBOR, UPPER AND LOWER BAY; RADAR OBSERVER (UNLIMITED) EXPIRES MAY 2003."
 - (2) "FIRST CLASS PILOT OF VESSELS OF ANY GROSS TONS UPON NEW YORK HARBOR, UPPER AND LOWER BAY; ALSO, OF NOT MORE THAN 3000 GROSS TONS HUDSON RIVER TO YONKERS, NY; ALSO, NOT MORE THAN 2000 GROSS TONS EAST RIVER TO WELFARE ISLAND; RADAR OBSERVER (UNLIMITED) EXPIRES FEBRUARY 2003."
 - (3) "THIRD MATE OF STEAM OR MOTOR VESSELS OF ANY GROSS TONS UPON OCEANS; FIRST CLASS PILOT OF VESSELS OF ANY GROSS TONS UPON NEW YORK HARBOR, UPPER AND LOWER BAY; ALSO, OF NOT MORE THAN 3000 GROSS TONS HUDSON RIVER TO YONKERS, NY; ALSO, OF NOT MORE THAN 3000 GROSS TONS EAST RIVER TO WELFARE ISLAND; RADAR OBSERVER (UNLIMITED) EXPIRES NOVEMBER 2003."
4. Chief Engineer Licenses.
Upper level chief engineers without horsepower (power rating) limitations will have their licenses issued on form CG-5206, License for Chief Engineer, unless they specifically request that form CG 2849, License for Merchant Marine Officer, be used. Prepare form CG-5206, License for Chief Engineer, in the following manner.
- a. In the blank following "Chief Engineer of United States," state the propulsion mode, either, "STEAM," "MOTOR" or "STEAM and MOTOR"; then
 - b. List any other engineer licenses held.
 - c. Some examples of license descriptions are:
 - (1) "CHIEF ENGINEER OF STEAM AND MOTOR VESSELS OF ANY HORSEPOWER";
 - (2) "CHIEF ENGINEER OF STEAM AND MOTOR VESSELS OF ANY HORSEPOWER; ASSISTANT ENGINEER OF SELF-PROPELLED MOBILE OFFSHORE DRILLING UNITS";
 - (3) "CHIEF ENGINEER OF STEAM VESSELS OF ANY HORSEPOWER; THIRD ASSISTANT ENGINEER OF MOTOR VESSELS OF ANY HORSEPOWER."
5. Engineer Officer Licenses.
For engineer officers, prepare form CG-2849, License For Merchant Marine Officer, in the following manner:
- a. List the grade, for example, "CHIEF ENGINEER," "CHIEF ENGINEER (LIMITED-NEAR COASTAL)," "FIRST ASSISTANT ENGINEER," "DESIGNATED DUTY ENGINEER," or "ASSISTANT ENGINEER (LIMITED-OCEANS)"; then

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- b. State the propulsion mode, either, "STEAM," "MOTOR" or "STEAM and MOTOR" for conventional vessels or "SELF PROPELLED" or "NON-SELF PROPELLED" for MODUs; then
 - c. State the tonnage limitation, for example, "OF ANY GROSS TONS" or "OF NOT MORE THAN 4000 GROSS TONS"; then, State any restrictions as to type of vessel, "MOBILE OFFSHORE DRILLING UNITS" or "UNINSPECTED FISHING INDUSTRY VESSELS"; then
 - d. State the horsepower (power rating) limitation, for example, "OF ANY HORSEPOWER" or "OF NOT MORE THAN 4000 HORSEPOWER."
 - e. Where service in more than one grade is authorized, the senior grade should be first, regardless of any limitation, e.g., chief engineer (even if chief engineer (limited)), then first assistant engineer, etc. Designated duty engineer (DDE) should be listed after assistant engineer.
 - f. Some examples of license descriptions are:
 - (1) "FIRST ASSISTANT ENGINEER OF STEAM VESSELS OF ANY HORSEPOWER"
 - (2) "SECOND ASSISTANT ENGINEER OF STEAM VESSELS OF ANY HORSEPOWER AND MOTOR VESSELS OF NOT MORE THAN 4000 HORSEPOWER";
 - (3) "CHIEF ENGINEER (LIMITED -- NEAR COASTAL) OF STEAM AND MOTOR VESSELS OF NOT MORE THAN 5000 HORSEPOWER; THIRD ASSISTANT ENGINEER OF STEAM AND MOTOR VESSELS OF ANY HORSEPOWER";
 - (4) "ASSISTANT ENGINEER (LIMITED-OCEAN) OF MOTOR VESSELS OF ANY HORSEPOWER; DESIGNATED DUTY ENGINEER OF STEAM AND MOTOR VESSELS OF ANY HORSEPOWER."
 - (5) "DESIGNATED DUTY ENGINEER OF MOTOR VESSELS OF NOT MORE THAN 1000 HORSEPOWER"; and,
 - (6) "CHIEF ENGINEER OF UNINSPECTED FISHING INDUSTRY VESSELS OF NOT MORE THAN 4000 HORSEPOWER."
6. Radio Officer Licenses.
When preparing form CG-2987, License For Radio Officer, if the applicant is a female and so requests, draw a line through the word "HE" and type above it the word "SHE."
7. Operator Of Uninspected Passenger Vessel Licenses.
Prepare form CG-2849, License For Merchant Marine Officer, as in the following examples:
- a. "OPERATOR OF UNINSPECTED PASSENGER VESSELS AS DEFINED IN 46 U.S.C. 2101 (42) UPON NEAR COASTAL WATERS NOT MORE THAN 100 MILES OFFSHORE. "FOR DOMESTIC VOYAGES ONLY, THE HOLDER OF THIS LICENSE MEETS THE STCW 1995 REGULATIONS WITHOUT FURTHER ENDORSEMENT. ";

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- b. "OPERATOR OF UNINSPECTED PASSENGER VESSELS AS DEFINED IN 46 U.S.C. 2101 (42) UPON INLAND WATERS EXCEPT WATERS SUBJECT TO THE INTERNATIONAL REGULATIONS FOR PREVENTING COLLISIONS AT SEA, 1972"; and,
 - c. "OPERATOR OF UNINSPECTED PASSENGER VESSELS AS DEFINED IN 46 U.S.C. 2101 (42) UPON INLAND WATERS LIMITED TO UNINSPECTED VESSELS NOT DOCUMENTED UNDER THE LAWS OF THE UNITED STATES."
8. Operator Of Uninspected Towing Vessel Licenses.
Prepare Form CG-2849, License For Merchant Marine Officer, as in the following examples:
- a. "OPERATOR OF UNINSPECTED TOWING VESSELS UPON OCEANS (DOMESTIC TRADE) - LIMITED TO SERVICE ON VESSELS OF NOT MORE THAN 200 GROSS TONS WHEN ON OCEAN OR NEAR COASTAL ROUTES; RADAR OBSERVER (UNLIMITED) EXPIRES JULY 2003." "FOR DOMESTIC VOYAGES ONLY, THE HOLDER OF THIS LICENSE MEETS THE STCW 1995 REGULATIONS WITHOUT FURTHER ENDORSEMENT. ";
 - b. "OPERATOR OF UNINSPECTED TOWING VESSELS UPON GREAT LAKES AND INLAND WATERS; RADAR OBSERVER (UNLIMITED) EXPIRES JUNE 2003." "FOR DOMESTIC VOYAGES ONLY, THE HOLDER OF THIS LICENSE MEETS THE STCW 1995 REGULATIONS WITHOUT FURTHER ENDORSEMENT. ";
 - c. "SECOND-CLASS OPERATOR OF UNINSPECTED TOWING VESSELS UPON NEAR COASTAL WATERS - LIMITED TO SERVICE ON VESSELS OF NOT MORE THAN 200 GROSS TONS WHEN ON NEAR COASTAL ROUTES; RADAR OBSERVER (UNLIMITED) EXPIRES JANUARY 2003." "FOR DOMESTIC VOYAGES ONLY, THE HOLDER OF THIS LICENSE MEETS THE STCW 1995 REGULATIONS WITHOUT FURTHER ENDORSEMENT"; and
 - d. "OPERATOR OF UNINSPECTED TOWING VESSELS UPON WESTERN RIVERS; RADAR OBSERVER (RIVERS) EXPIRES AUGUST 2003."
9. Certificates Of Registry.
Prepare form CG-887, Certificate of Registry, in the following manner.
- a. If the applicant is a female and so requests, draw a line through the word "HE" and type above it the word "SHE," and
 - b. In the blank following the words "IN THE GRADE OF" state the grade of staff officer, for example, "CHIEF PURSER," "JUNIOR ASSISTANT PURSER," "PROFESSIONAL NURSE," then
 - c. If the applicant also holds an endorsement as "MARINE PHYSICIAN ASSISTANT" or "HOSPITAL CORPSMAN" that endorsement will follow the staff officer grade.
 - d. Above the text showing the issue date, type, "This certificate is valid for five years from this date and will expire on the day of, 200

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- e. Some examples of certificate of registry descriptions are:
- (1) "MEDICAL DOCTOR";
 - (2) "CHIEF PURSER/MARINE PHYSICIAN ASSISTANT";
 - (3) "SENIOR ASSISTANT PURSER/HOSPITAL CORPSMAN."

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Sea service requirements for original licenses and raises of grade are stated in 46 CFR Part 10, and are based on service aboard U.S. merchant vessels. 46 CFR Part 12 gives the requirements for unlicensed ratings. Military sea service experience must be a reasonable equivalent to the service required of a merchant mariner who is seeking an identical license or MMD. Military personnel applying for a license or MMD represent a challenge to the REC evaluating their application. This is due to the wide range of ratings and duties they present as sea service. The evaluations are normally conducted by the REC. The REC may refer the more difficult or sensitive evaluations to NMC. In addition, to avoid the appearance of favoritism or undue influence, the REC should refer an evaluation to NMC for any applicant that is:

1. A Coast Guard officer senior to the OCMI;
2. A Coast Guard officer stationed at the MSO or Activity senior to the chief of the REC; or
3. A person assigned to work at the REC.

B. Criteria For Accepting Military Sea Experience.**1. Application Evaluation.**

Evaluations of military experience are conducted when a Transcript Of Sea Service or equivalent information is presented with an application (see Section B.2). At the discretion of the REC, additional information may be requested. Generally, additional information will be required to verify claims of a higher percentage of underway time than the 60% normally allowed by the regulations. In addition, the REC may require an official description of duties statement, letters of qualification, service record entries, or letters from former supervisors or commanding officers.

2. Transcript Of Sea Service.

The Transcript Of Sea Service provides the periods of assignment, name of vessel, and capacity (rate/rank) served. The application must contain a Transcript Of Sea Service, not a shipboard generated letter or DD-214. Standard Form SF-180, Request Pertaining To Military Records, may be used by the applicant to obtain a transcript. This form lists the addresses of all the services where the request should be sent. The Federal Record Center, at St. Louis, MO, is not sending the ex-service person Transcripts of Sea Service. Instead, they are sending various pages from their personnel files which document when, where, rate, and duration of the applicant's sea service. Evaluators will have to become familiar with the various forms and how to extract the pertinent information. Because these forms are military in nature, MSO administration offices or PERSRUs could be of assistance in deciphering the information. The SIP may accept other documentation attesting to sea service if it has the same level of authenticity as a transcript. In other words, will it stand up to an audit?

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The majority of military vessels are not measured in gross or net tonnage. Therefore, it is necessary for the evaluating officer to estimate the gross tonnage of the vessels for which experience is claimed. The formula "DISPLACEMENT x .57" provides an acceptable estimate of gross tonnage (use full load displacement). Jane's Fighting Ships is an excellent reference for finding the vital statistics of U.S. military vessels. It is likely that this source will provide the displacement for most military vessels. All Coast Guard high endurance cutters (WHECs), medium endurance cutters (WMECs) of the Bear class only (270 foot cutter), icebreakers (WAGBs), and the USCGC Eagle are over 1600 gross tons. All other Coast Guard vessels currently in service are less than 1600 gross tons. Former Coast Guard vessels of 255 feet (77 meters) and up were over 1600 gross tons.

4. Calculation of Service.

Military sea service shall be evaluated sequentially in the order obtained over the course of a military career, which reflects the same progression for a merchant mariner. Tonnage and horsepower limitations, if any, shall be calculated for each license level through the progression. It is not acceptable to average tonnage or horsepower over a career. Pay particular attention to the recency requirements in 46 CFR 10.202(e) because recency, or lack thereof, can also limit the tonnage or horsepower for an original license.

5. Description Of Duties Evaluation.

The most troublesome aspect of the military evaluation is translating military duties to meet the experience requirements specified in 46 CFR Part 10. Based upon past evaluations, the following guidelines have been developed. See Figure 2-2 and 2-3 of this chapter for further explanations and examples.

a. Officers.

Deck watch officers' (DWOs) and engineering watch officers' (EWOs) duties are considered equivalent to the watchstanding duties performed by licensed mates and engineers respectively aboard merchant vessels. Therefore, this qualifying sea service may be used to satisfy the experience requirements for an original or raise of grade of a mate or assistant engineer license. For an original third's license, up to eighteen months service as DWO/EWO may be substituted for up to 36 months of unlicensed service. One day of service as a DWO or EWO is counted as 2 days of unlicensed sea service to meet the requirements of the regulations. When computing sea service toward a license grade above third, such as an original second, or a raise of grade, DWO/EWO time is creditable on a one-for-one basis. Service experience obtained as a junior officer of the deck (JOOD) is considered equivalent (on a one-for-one basis) to able seaman time. See examples at the end of this chapter.

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- b. Service As Commanding Officer (CO).
To qualify as unlimited master, at least six months of the required creditable service must have been as CO. The CO service must have occurred after the applicant had accumulated enough creditable service to qualify as chief mate. An applicant with military experience has not had exposure to merchant marine concerns such as cargo handling, payrolls, union relations, etc. Service as CO indicates that the applicant has experience in a position of responsibility which compensates, to some extent, for differences between the operation of military and merchant vessels.
- c. Service As Engineer Officer (EO).
To qualify as unlimited chief engineer, at least six months of the required creditable service must have been as EO. The EO service must have occurred after the applicant had accumulated enough creditable service to qualify as first assistant engineer. An applicant with military experience has not had exposure to merchant marine concerns such as payrolls, union relations, etc. Service as EO indicates that the applicant has experience in a position of responsibility which compensates, to some extent, for differences between the operation of military and merchant vessels.
- d. Enlisted Personnel Applying For Licenses.
Evaluation of sea service is more complex for enlisted personnel than it is for officers. This is due to the great variety of specialized duties that enlisted personnel perform. When evaluating underway sea service, use the following guidelines:
- (1) Service as a seaman apprentice (SA) or seaman (SN) is equivalent to sea service as an ordinary seaman or deckhand;
 - (2) Service as fireman apprentice (FA) or fireman (FN) is equivalent to sea service as a wiper or coal passer;
 - (3) Service as a petty officer in the deck department is considered equivalent to that of an AB; and
 - (4) Service as a petty officer in the engineering department is considered equivalent to that of a QMED.
 - (5) Deck rating of E-4 and above with qualifications as DWO is equivalent to licensed mate time.
 - (6) Service experience obtained as a junior officer of the deck (JOOD) is considered equivalent (on a one-for-one basis) to able seaman time.
 - (7) Engine rating of E-4 and above with qualifications as EWO is equivalent to licensed assistant engineer time.

Note: The above are only guidelines. Applicants furnishing time as a petty officer in charge of a navigational watch should have that time counted towards a licensed officer.

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- e. Ratings Accepted Toward Licenses.
Certain ratings due to their nature are usually disqualifying on their face for a license. Figure 2-1 is a guide for evaluating service in various ratings. Suggested acceptance of service is indicated by "XXX." When evaluating military ratings, if the military service is found to be closely related to the duties of AB or QMED, then RECs are authorized to grant up to 50% of the service towards the applicable license

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NAVY AND COAST GUARD RATINGS And THEIR EQUIVALENCIES	DECK 100%	DECK 50%	QMED 100%	QMED ¹	PURSER 100%	PURSER ²	PURSER 50%	Jr. Asst. PURSER
Aerographer's Mate (AG)								
Air Traffic Controller (AC)								
Aircraft Survival Equipmentman (PR)								
Aviation Antisubmarine Warfare Operator (AW)								
Aviation Antisubmarine Warfare Technician (AX)								
Aviation Boatswain's Mate (AB), (ABE), (ABF), (ABH)								
Aviation Electrician's Mate (AE)								
Aviation Electronics Technician (AT)								
Aviation Fire Control Tech. (AQ)								
Aviation Machinist's Mate (AD)								
Aviation Maintenance Admin. (AZ)								
Aviation Ordnanceman (AO)								
Aviation Storekeeper (AK)								
Aviation Structural Mechanic (AM), (AME), (AMH), (AMS)								
Aviation Support Equipment Tech (AS)								
Aviation Survivalman (ASM) (CG)								
Boatswain's Mate (BM)	XXX							
Boiler Technician (BT)			XXX					
Builder (BU)								
Construction Electrician (CE)								
Construction Mechanic (CM)								
Cryptologic Technician (CT), (CTA), (CTR), (CT), (CTI), (CTM), (CTT)								
Damage Controlman (DC)				XXX				
Data Processing Technician (DP)								XXX
Data Systems Technician (DS)								
Dental Technician (DT)								
Disbursing Clerk (DK)					XXX			
Electrician's Mate (EM) -CG			XXX					
Electrician's Mate (EM) -Navy				XXX				
Electronics Technician (ET)								

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NAVY AND COAST GUARD RATINGS And THEIR EQUIVALENCIES	DECK 100%	DECK 50%	QMED 100%	QMED ¹	PURSER 100%	PURSER ²	PURSER 50%	Jr. Asst. PURSER
Electronic Warfare Technician (EW)								
Engineering Aid (EA)								
Engineman (EN)			XXX					
Equipment Operator (EO)								
Fire Controlman (FC)								
Fire Control Tech. (FT) (FTH), (FTG)								
Fire And Safety Technician (FS)								
Gas Turbine Systems Tech. (GS), (GSE), (GSM)			XXX					
Gunner's Mate (GM)		XXX						
Health Services Technician (HS)								XXX ³
Hospital Corpsman (HM)								XXX ³
Hull Maintenance Technician (HT)				XXX				
Illustrator Draftsman (DM)								
Instrument Man (IM)								
Intelligence Specialist (IS)								
Interior Comm. Electrician (IC)				XXX				
Investigator (IV)								
Journalist (JO)								
Legalman (LN)								
Lithographer (LI)								
Machinery Technician (MK)			XXX					
Machinery Repairmen (MR)			XXX					
Machinist's Mate (MM)								
Marine Science Technician (MST)								
Master-At-Arms (MA)								
Mess Management Specialist (MS)						XXX		
Mineman (MN)								
Missile Technician (MT)								
Molder (MI)								
Musician (MU)								
Navy Counselor (CC)								
Ocean Systems Technician (OT)								
Operations Specialist (OS)	XXX							
Opticalman (OM)								

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NAVY AND COAST GUARD RATINGS And THEIR EQUIVALENCIES	DECK 100%	DECK 50%	QMED 100%	QMED ¹	PURSER 100%	PURSER ²	PURSER 50%	Jr. Asst. PURSER
Patternmaker (PM)								
Personnelman (PN)								
Photographer's Mate (Ph)								
Port Securityman (PS)								
Postal Clerk (PDT)								
Public Affairs Specialist (PA)								
Quartermaster (QM)	XXX							
Radarman (RD)	XXX							
Radioman (Rm) (USCG Service See TC)								
Religious Program Specialist (RP)								
Ship's Serviceman (SH)							XXX	
Signalman (SM)	XXX							
Sonar Technician (ST), (STS)								
Steelworker (SW)								
Storekeeper (SK)					XXX			
Subsistence Specialist (SS)						XXX		
Telecommunications Specialist (TC)								
Telephone Technician (TT)				XXX				
Torpedoman's Mate (TM)								
Utilitiesman (UT)								
Weapons Technician (WT)								
Yeoman (YN)								

1ST RULE: CALCULATE 60% OF QUALIFYING TIME THEN APPLY ADDITIONAL % AS SHOWN ABOVE

¹ QMED 100% Only For Standing Engine room Watches; Watchstanding Must Be Documented.

² PURSER 100%; Must Be A PO1 Through MCPO, Or, PO2 For 5 Years In Supervising On Ordering.

³ QMED 100% Only For Standing Engine room Watches; Watchstanding Must Be Documented.

⁴ PURSER 100%; Must Be A PO1 Through MCPO, Or, PO2 For 5 Years In Supervising And Ordering.

⁵ HS and HM Rates, 1st Class Or Higher, Qualify For Hospital Corpsman Endorsement With At Least 1 Month Service In Military Hospital Or U.S. Public Health Services Hospital (Time At Sea Not Required); Must Be Issued Jr. Asst. Purser For This Endorsement.

⁶ QMED 100% Only For Standing Engine room Watches; Watchstanding Must Be Documented.

⁷ PURSER 100%; Must Be A PO1 Through MCPO, Or, PO2 For 5 Years In Supervising And Ordering.

PART A: MARINER CREDENTIALING**CHAPTER 2: EQUIVALENT SERVICE FOR LICENSES/MERCHANT MARINER'S DOCUMENTS**

- f. Ratings Accepted Toward MMDs.
- (1) Deck Service. Enlisted service, regardless of rating, must meet the definition in 46 U.S.C. 7301 of "service on deck" in order for it to be accepted toward any of the able seaman classifications.
 - (2) Engineer Service. Any enlisted service which can be equated to wiper or to any of the qualified member of the engine department (QMED) ratings may be accepted toward meeting the service requirements for all the QMED endorsements except deck engine mechanic and engineman. Qualifications for deck engine mechanic and engineman must be evaluated separately since these two ratings have specific qualification requirements which must be met.
- g. Submarine Service.
- (1) Enlisted Service. Care should be taken when applying Figure 2-1 to submarine service. Often on submarines non-traditional ratings such as YNs or SKs stand operational watches. Watchstanding qualifications and interviewing the applicant should help the evaluator determine what is acceptable submarine service.
 - (2) Deck Service. Only 75 percent of the total creditable sea service required for a deck license may be obtained aboard submarines. The remaining creditable sea service must have been obtained aboard surface vessels.
 - (3) Example. An applicant for an unlimited third mate license has a total of 20 months of creditable sea service on board submarines as DWO. The applicant is required to present 18 months of creditable sea service as DWO. Only 75% may be on submarines, therefore, only 13.5 months (18 months x .75) can be used toward the third's license. The additional 4.5 months must be obtained as a DWO on surface vessels.
 - (4) Engineering Service. In contrast, underway engineering service aboard submarines is considered equivalent to engineering service obtained aboard surface vessels.
 - (5) See 46 CFR 10.213(d) for further information.
- h. Service On Vessels Other Than Underway.
46 CFR 10.213(c) discusses the application of a 25% credit factor for periods of assignment to vessels at times other than underway. Creditable sea service for this category applies to vessels, whose sea service has not been previously used, that spend the vast majority of their time moored. An example, would be a submarine tender or a vessel undergoing an extended shipyard visit. The vessel status would not

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be reflected on the Record of Sea Service but might be established during the evaluator's interview of the applicant.

- i. Credit For Military Schools. Unless the school is NMC approved, training received at a military school will not be granted sea service credit nor be accepted as meeting mandatory training requirements (e.g. radar observer, firefighting).
- C. Experience Aboard Dredges.
Self propelled dredges may conduct their operations upon inland waters. Service on board dredges should be evaluated to ensure appropriate ocean or near coastal service. Daily operations that include at least one voyage beyond the boundary lines for the disposal or mining of dredge material shall be credited as ocean service.
- D. Evaluating Coast Guard Personnel For Licenses.
Coast Guard personnel who apply for a license shall comply with all the regulations for the license. Officers senior to the OCMI, shall request permission from the district commander to apply for a license. In granting such requests, the district commander may require the applicant to comply with certain additional conditions. Some of these conditions may include submitting applications and taking examinations at a Regional Examination Center (REC) in another district.
- E. Examining Coast Guard Marine Safety Personnel For Licenses.
Coast Guard marine safety experience does not equate to shipboard service and may not be used to qualify for an original or raise of grade of a license. Such experience is generally helpful in preparing for a license examination; however, the only military service creditable towards eligibility for a license is underway service (except as discussed in paragraph 2.B.4.h. above). To prevent criticism or charges of Coast Guard favoritism in the licensing process, Coast Guard marine safety personnel must obtain permission to apply for a license from their district commander. The district commander may apply the restrictions listed above. However, under the present examination system, a separate randomly produced examination can allow the applicant to sit at the local REC. The applicant's file shall contain the letter of request and the district commander's letter of approval. Headquarters personnel should apply to the district commander in whose jurisdiction the REC resides. Refer to paragraph A.2. of this chapter for instances when applications must be sent to Commandant to be evaluated. Coast Guard personnel who have passed a rules of the road test as an end of course test or as a Deck Watch Officer examination will not be exempted from taking the rules of the road portion of any Coast Guard license examination.
- F. Examining Coast Guard Regional Examination Center Personnel For Licenses.
Special examinations should be requested from the examinations branch at the National Maritime Center for REC personnel. See chapter 5 for further details.

PART A: MARINER CREDENTIALING**CHAPTER 2: EQUIVALENT SERVICE FOR LICENSES/MERCHANT MARINER'S DOCUMENTS****G. Time-And-One-Half Sea Service Credit.**

The time-and-one-half provision was put in the regulations to take into account the additional experience mariners obtain when they stand watches on a six-on, six-off watch schedule.

Time-and-one-half credit will not be given for overtime nor for other work days that do not involve six-on, six-off watchstanding even if the work days are more than eight hours long.

The six-on, six-off watch schedule should be proven to the satisfaction of the OCMI or their representative before the time and a half credit is applied. The following sources express this intent.

1. The Notice of Proposed Rulemaking (for the current licensing system), FR 35926, August 8, 1983, stated, "Many comments expressed concern about obtaining additional credit for 12 hour days in the case of people that work six on/six off watches. A statement has been added to a new definition section in the proposed regulations whereby any persons standing watches on any vessels upon which the six on/six off watch schedule may be used, will be given credit for 1.5 times each 12 hour day of service in that capacity."
2. House Report No. 96-1075 on Public Law 96-378 [H.R. 5164], which created our current system of Able Seaman ratings, states on page 27, "The eight-hour provision is primarily intended to assure that those mariners who work a two-watch system (that is, six hours on duty and six hours off duty for a total of twelve hours a day) will receive a day and a half of credit for each twelve-hour day worked."
3. Some inland vessels not subject to the 2 or 3 watch system have in place a 12 hour watch rotation. If the REC can verify that such a schedule is practiced and legal, day and a half credit may be granted.

PART A: MARINER CREDENTIALING**CHAPTER 2: EQUIVALENT SERVICE FOR LICENSES/MERCHANT MARINER'S DOCUMENTS****FIGURE 2-2: EXAMPLES OF MILITARY EVALUATIONS (DECK)**

Note: The service presented must be equivalent to that required of a merchant mariner. The following methods of evaluation apply. All the sea service times referred to below are after all the appropriate deductions have been made.

Original Third Mate (except academy graduates)

Officer Sea Service:

Each day of DWO sea service is counted as two days of the required service for an original third mate's license. As an example 18 months sea service as DWO is equal to the 36 months of unlicensed sea service. Service as DWO is equivalent to licensed merchant marine watchstanding service rather than unlicensed service, therefore, more sea service credit can be given.

Officer sea service as other than a DWO is counted day-for-day towards an original third mate's license. The following are some examples of this type of deck service: CIC Officer, Navigator, JOOD, Assistant Navigator, 1st Lieutenant, Gunnery Officer and other duties associated with the operation of the vessel on deck.

This time cannot be used to duplicate service during the same time period that is being counted as watchstanding. When the non-watchstanding time exceeds that of the watchstanding time, the difference in the times may be used as 1 for 1 service. For example, if the Transcript of Sea Service shows 20 months as operations officer and 16 months as DWO during the same time period, the difference of four months can be credited, after applying a 60% reduction, on a 1 for 1 basis.

Enlisted Sea Service: Most of the ratings are explained in 46 CFR 10.213(b). The Navy has combined some ratings into operations specialist. Operations specialist is a combination of the ratings quartermaster, radarman, sonarman, and signalman. The evaluator must be careful when evaluating the operations specialist to ascertain the type of duties the applicant performed as it relates to the navigation and control of the vessel.

Combining Sea Service: When computing the 36 months (1080 days) required for a third's license, you may use a variety of service in combination. Care must be taken not to allow excess service when computing the license. Service is computed in the chronological order in which it was served. The following is an example:

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PART A: MARINER CREDENTIALING**CHAPTER 2: EQUIVALENT SERVICE FOR LICENSES/MERCHANT MARINER'S DOCUMENTS****FIGURE 2-2: EXAMPLES OF MILITARY EVALUATIONS (DECK) (Cont'd)**EXAMPLE OF THIRD MATE CALCULATIONS (NON-ACADEMY)**TRANSCRIPT OF MILITARY SEA SERVICE**

NAME: CDR Joe Goodship

CGC GALLATIN (WHEC)	SA/SN	8 MONTHS
GM3		24 MONTHS
CGC POINT HURON (WPB)	GM3/2	24 MONTHS
CGC TACKLE (WYTL)	GM2/1	28 MONTHS
CGC POLAR STAR (WAGB)	ENS/LTJG	15 MONTHS 10 MONTHS DWO (UNDERWAY) 12 MONTHS 1ST LT. 3 MONTHS OPS OFFICER
CGC SASSAFRAS (WLB)	LT	12 MONTHS 12 MONTHS OPS OFFICER 8 MONTHS DWO

The following is an example of how to compute the sea service time for the above transcript:

COMPUTATION OF SEA SERVICE

SEA SERVICE REDUCED BY 60% (DAYS) = TOTAL SEA SERVICE (MONTHS)
X .6(60%) X 30 DAYS

<u>RANK/RATE</u>	<u>TOTAL SEA SERVICE (MONTHS)</u>	<u>SERVICE REDUCED BY 60% (DAYS)</u>	<u>SEA SEA SERVICE ALLOWED (DAYS)</u>
(1) CGC GALLATIN (over 1600 GT)	SA/SN GM3	8 24	144144 ¹ 432180 ² +126 ³

PART A: MARINER CREDENTIALING**CHAPTER 2: EQUIVALENT SERVICE FOR LICENSES/MERCHANT MARINER'S DOCUMENTS****FIGURE 2-2: EXAMPLES OF MILITARY EVALUATIONS (DECK) (Cont'd)**

1. 46 CFR 10.213(b) allows SA/SN sea service as equivalent to ordinary seaman service.
2. Section 2.B.4.d. allows up to 180 days of non-deck rating time (as defined in 46 CFR 10.213(b)) toward a Third Mate license.
3. The remainder of the 432 days after the 180 days is allowed can be given 50% credit as indicated in Figure 2-1 ($432 - 180 = 252$. $252 \times 50\% = 126$). [NOTE: Had the GM3 service been a deck rating, such as BM3, the sea service would be equivalent to the able seaman sea service required by 46 CFR 10.407(a)(1).]

(2). CGC POINT HURON GM3/2 24 432 0

(3). CGC TACKLE GM2/1 28 504 0

Both vessels are under 200 gross tons therefore the sea service cannot be used for this license.

(4). CGC POLAR STAR DWO 10 180 360
 (over 1600 GT) 1ST LT 5 90 90

Since the time here was as a DWO, each day of DWO sea service is counted as two days of required service or double the accrued time. As stated previously, this sea service is considered equivalent to watchstanding mate service.

(5). CGC SASSAFRAS DWO 8 144 288
 (over 200 GT) OPS OFFICER 4 72 72

TOTAL 1260

The Sassafras is under 1600 but it is over 200 gross tons so it can be used for up to 50% of the service required for an unlimited third's license. If more than 50% of the required service was on vessels under 1600 gross tons, a tonnage limitation would be computed for the third's license.

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PART A: MARINER CREDENTIALING**CHAPTER 2: EQUIVALENT SERVICE FOR LICENSES/MERCHANT MARINER'S DOCUMENTS****FIGURE 2-2: EXAMPLES OF MILITARY EVALUATIONS (DECK) (Cont'd)**EXAMPLE OF ORIGINAL MASTER CALCULATIONS (ACADEMY)**TRANSCRIPT OF MILITARY SEA SERVICE**

NAME: CDR B. JONES

Summary of service:

Vessels	Service	Days Assigned	Credit
Graduated CG Academy:			
('77)Northwind (WAGB) >1600	Cadet		
('77)Northwind (WAGB) >1600	DWO	700	420
('78)Burton Is. (WAGB) >1600	DWO	369	221
('84)Laurel (WLB) <1600	DWO	723	434
('91)Sedge (WLB) <1600	DWO	1067	640
('97)Acushnet (WMEC) <1600	CO	822	493

Sequential evaluation

For 3rd Mate

Vessels	Credit	Notes
---------	--------	-------

CG Academy

Northwind:

Qualified DWO

Qualifies as third mate: 46 CFR 10.407(a)(1)(iii)

For 2nd Mate

Vessels	Credit	Notes
---------	--------	-------

Northwind

360

Total: 360 days/360 >1600

For Chief Mate

Vessels	Credit	Notes
---------	--------	-------

Northwind

60

Carry over

Burton Is.

221

Laurel

79

Total: 360 Days/281 >1600

CDR Jones meets the sea service for chief mate AGTs. However, he has not served aboard a vessel of over 1600 gross tons since Burton Island in 1978. The recency provisions of 46 CFR 10.202(e) apply. He must have three months' qualifying experience on vessels of appropriate tonnage (all over 200grt, half over 1600grt) within three years of application.

PART A: MARINER CREDENTIALING**CHAPTER 2: EQUIVALENT SERVICE FOR LICENSES/MERCHANT MARINER'S DOCUMENTS****FIGURE 2-2: EXAMPLES OF MILITARY EVALUATIONS (DECK) (Cont'd)**For Master

<u>Vessels</u>	<u>Credit</u>	<u>Notes</u>
Laurel	355	
Sedge	640	
Acushnet	493	CO
Total:	1488	< 1600

CDR Jones qualifies for Master 1600 gross tons because he does not have sufficient service on vessels of over 1600 gross tons. However, he may be permitted to sit for Master Unlimited with a 2,000 gross register ton restriction as permitted by 46 CFR 10.402(b).

1. Mariner qualifies for third mate after completing the Coast Guard academy and qualifying as a deck watch officer under, 46 CFR 10.407(a)(1)(iii).
2. Service is evaluated sequentially, in the order obtained over the course of the career. In this case, the mariner "uses up" service on vessels of over 1600 gross tons early in the career. In effect, the higher tonnage service was used to qualify at second and chief mate levels.
3. To qualify for an original master's license, the mariner must serve as Commanding Officer for at least 180 days, 46 CFR 10.213(a).

PART A: MARINER CREDENTIALING**CHAPTER 2: EQUIVALENT SERVICE FOR LICENSES/MERCHANT MARINER'S DOCUMENTS****FIGURE 2-3 EXAMPLES OF MILITARY EVALUATIONS (ENGINE)**

Note: The service presented must be equivalent to that required of a merchant mariner. The following methods of evaluation apply. All the sea service times referred to below are after all the appropriate deductions have been made.

Original Third Assistant Engineer (except academy graduates)

Officer Sea Service:

Each day of EWO sea service is counted as two days of the required service for an original Third Assistant Engineer's licenses. As an example, 18 months sea service as EWO is equal to the 36 months creditable sea service. Service as EWO is equivalent to licensed merchant marine watchstanding service rather than unlicensed service, therefore, more sea service credit can be given.

Officer sea service as other than a EWO is counted day for day towards an original third's license. The following are some examples of this type of engineering service: Main Propulsion Assistant, Electrical Officer, Auxiliary Officer, Damage Control Officer and any other duties associated with the engineering plant.

This time cannot be used to duplicate service during the same time period that is being counted as watchstanding. When the non-watchstanding time exceeds that of the watchstanding time, the difference in the times may be used as 1 for 1 service. For example, if the Transcript of Sea Service shows 20 months as main propulsion assistant and 16 months as EWO during the same time period, the difference of four months can be credited, after applying the 60% reduction, on a one for one basis.

Enlisted Sea Service: Most of the ratings are explained in 46 CFR 10.213(b). The Coast Guard has the rating of Machinery Technician (MK) that combines the Boiler Technicians (BT), Machinist Mate (MM), Damage Controlman (DC) and Engineman (EN).

Combining Sea Service: When computing the 36 months (1080 days) required for a third's license, a variety of service may be used in combination. Care must be taken not to allow excess service when computing the license. Service is computed in the chronological order in which it was served. The following is an example:

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PART A: MARINER CREDENTIALING**CHAPTER 2: EQUIVALENT SERVICE FOR LICENSES/MERCHANT MARINER'S DOCUMENTS****FIGURE 2-3: EXAMPLES OF MILITARY EVALUATIONS (ENGINE) (Cont'd)**EXAMPLES OF THIRD ASSISTANT ENGINEERS (NON-ACADEMY)TRANSCRIPT OF MILITARY SEA SERVICE**NAME: CDR Joe Goodship**

CGC GALLATIN (WHEC)	FA/FN	8 MONTHS
	DC3	24 MONTHS
CGC POLAR STAR (WAGB)	CWO2(ENG)	15 MONTHS
		10 MONTHS EWO (UNDERWAY)
		12 MONTHS MAIN PROPULSION ASST.
		3 MONTHS AUXILIARY OFFICER
CGC TAMAROA (WMEC)	CWO2(ENG)	12 MONTHS
		12 MONTHS AUX OFFICER
		8 MONTHS EWO (UNDERWAY)

The following is an example of how to compute the sea service time for the above transcript.

COMPUTATION OF SEA SERVICE

SEA SERVICE REDUCED BY 60% (DAYS) = TOTAL SEA SERVICE (MONTHS) x .6(60%) x 30 DAYS

RANK/RATE	TOTAL	SEA	SEA
	SEA	SERVICE	SERVICE
	SERVICE	REDUCED	ALLOWED
	(MONTHS)	BY 60%	(DAYS)
		(DAYS)	
CGC GALLATIN	FA/FN	8	144
7000 hp (5300 kW)	DC3	24	432
			144^1
			180^2

- 46 CFR 10.213(b) allows FA/FN sea service as equivalent to ordinary seaman service.
- Section 2.B.4.d. allows up to 180 days of non-engine room rating time (as defined in 46 CFR 10.213(b)) toward a Third Assistant Engineer's license. The computation gives 432 days but only 180 days can be used. [NOTE: In this example DC3 Goodship was not an engine room watchstander so per Figure 2-1, the service is not credited as engineer service. Had the DC3 service been as a watchstander or had it been an engine room rating such as MM3, the sea service would be equivalent to the QMED sea service required by 46 CFR 10.516(a)(1).]

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PART A: MARINER CREDENTIALING**CHAPTER 2: EQUIVALENT SERVICE FOR LICENSES/MERCHANT MARINER'S DOCUMENTS****FIGURE 2-3: EXAMPLES OF MILITARY EVALUATIONS (ENGINE) (Cont'd)**

CGC POLAR STAR	EWO	10	180	360
18,000 hp	Dept. Head	5	90	90
(13,500 kW)				

Since the time here was as an EWO, each day of EWO sea service is credited as two days of required service or double the accrued time. As stated previously, this sea service is considered equivalent to watchstanding engineering service.

CGC TAMAROA	EWO	8	144	288
3000 hp	AUX OFFICER	4	72	72
(2200 kW)				
			TOTAL	<u>1134</u>

The Tamaroa is under 4000 hp (3000 hp) so it can be used for up to 50% of the service required for an unlimited third's license. If more than 50% of the required service was on vessels under 4000 hp (3000 kW), a horsepower (power rating) limitation would be computed for the third's license.

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PART A: MARINER CREDENTIALING**CHAPTER 3: EVALUATION OF CHARACTER ISSUES AND VIOLATIONS OF LAW****TABLE OF CONTENTS**

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PART A: MARINER CREDENTIALING**CHAPTER 3: EVALUATION OF CHARACTER ISSUES AND VIOLATIONS OF LAW****A. Character And Violations Of Law.**

This chapter deals with the policies for rejecting applications for all Merchant Mariner's Documents (MMDs), licenses and Certificates of Registry (CORs) when there is substantial evidence that the criminal convictions, character or habits of life warrant the rejection. The evaluator must consider all aspects of the applicant's record. The applicant's record of convictions are our best source to determine if the applicant should be rejected. However, in some cases, the evaluator may have to make a determination from records other than convictions. There are few simple answers to whether an applicant is qualified. The evaluator should use any source available to determine the qualification of an applicant. See 46 CFR 10.103 and 12.01-6, for the court orders that are considered a conviction for the purposes of this chapter.

1. 46 U.S.C. Section 7101 authorizes the Secretary of the department or agency under which the Coast Guard is operating to issue licenses to applicants found qualified as to age, experience, professional qualifications, physical fitness, character and habits of life. In addition, the Coast Guard may issue a Certificate of Registry to applicants found qualified as to experience, knowledge, skill and character. 46 U.S.C. Section 7503(b)(1) provides that a license, COR or MMD application may be denied to any individual who, within ten years before making application, was convicted of violating a dangerous drug law of the United States. 46 CFR 10.201 and 46 CFR 12.02-4 address denial of license, COR, and MMD applications based upon narcotic convictions. Assessment periods are minimum and maximum periods of time over which the OCMI will consider a conviction(s) in the evaluation of an applicant for merchant mariner's credentials. Definitive guidelines for assignment of assessment periods to be used for the evaluation of applicants with various criminal and driving convictions were published in a Final Rule on December 19, 1995. [60FR65478 dtd December 19, 1995, "National Driver Registration and Criminal Record Review in Issuing Licenses, Certificates of Registry, or Merchant Mariner's Documents"].
2. 46 U.S.C. Section 7503 provides that an applicant may be denied a license or COR or MMD if they have been a user of, or addicted to, a dangerous drug, unless the applicant provides satisfactory proof of cure. Dangerous drugs are defined in 46 U.S.C. 2101 and mean a narcotic or controlled substances including marijuana.
3. Before Congress enacted the Oil Pollution Act of 1990 (OPA-90), (Pub. L. 101-380), an individual who applied for a license, COR or MMD was not required to provide the Coast Guard with National Drivers Register (NDR) information. OPA-90 amended laws which now require the Coast Guard to review the applicant's driving record for certain NDR listed traffic offenses before issuing a license, COR or MMD. These offenses include operation of a motor vehicle while under the influence of, or while impaired by, alcohol or a controlled substance; any traffic violation(s) arising in connection with a fatal traffic accident, and reckless driving, or racing on the highways.

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Although an individual's motor vehicle record may not be directly related to his or her maritime career, a record of alcohol or drug related, or other motor vehicle offense(s) indicates that the individual may have a disregard for his or her own safety or the safety of others and therefore may not be suitable for maritime employment. Information received from the NDR must be made available to the applicant for review and written comment before the Coast Guard uses this information as a basis for denying an application for a license, COR, or MMD.

4. Persons who have a record of certain criminal convictions may be viewed as lacking appropriate character and hence denied the privilege to act as a licensed officer or MMD holder. Unacceptable character traits or habits of life may be demonstrated by criminal convictions for murder, assault, rape, theft, child molestation and related crimes, or through demonstrated repeated disregard for the rules and regulations of an orderly society (convictions for disorderly conduct, reckless driving and similar violations of law). Due to complex combinations of convictions and other variables, a simple matrix of acceptable versus unacceptable criminal backgrounds is not practicable. Each applicant must be evaluated individually to determine their qualification for a license, COR, or MMD. Factors to be considered should include at least the following:
 - a. Types of crimes and the number of convictions.
 - b. Recency of convictions.
 - c. Age at which the crimes were committed.
 - d. Evidence of frequent and repeated criminal activity (includes misdemeanors and/or felonies).
 - e. The extent of the connection between the crime and the license or COR and the safe and legal operation of a vessel.
 - f. Character references from responsible persons in extenuation and mitigation.
 - g. The length of time spent since release from incarceration or supervised parole.
5. Any applicant who holds or is eligible to renew a license, COR or MMD, who has been convicted of a drug related crime, or has admitted to using or been reported to have used narcotics, or has been convicted of an NDR related offense within the past three years will be referred to the Senior Investigating Officer (SIO) for an investigation prior to processing the applicant's requested transaction.
6. Evaluating the Crime(s): See section 3.C of this volume.
7. Evaluating Multiple Convictions: See section 3.C of this volume. Multiple convictions may indicate a history of flagrant disregard for the rules of an orderly society. In such cases, the minimum assessment period will be the longest minimum in the regulations, based upon the applicant's convictions. The maximum assessment period will be the longest shown in the regulations.
8. OCMI Discretion: Each case must be evaluated individually. The reason for any assessment period must be well documented in the applicant's file.

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Failure to complete an initial application truthfully can lead to its consideration as fraudulent and to the voiding of any license, certificate, or document issued under such an application ab initio (as if never issued). When it has been determined that statements in an application were fraudulently made and not merely the result of unintended misstatement or misunderstanding, the applicant shall be required to wait 12 months before he/she can reapply. If it is later determined that an initial license, COR or MMD, was issued based on fraudulent information, that license, COR, or MMD should be considered "null and void" and must be returned to the REC. After the assessment period expires, the applicant must start the application process from the beginning. When a license, COR or MMD is denied or declared "null and void", the OCMI shall advise the holder of the appeal rights contained in 46 CFR 10.204 and/or 46 CFR 12.02-25.

2. Subsequent Applications.

A license, COR, or MMD shall not be reissued to an applicant if, during the re-application process, a fraudulent application is discovered. A license, COR, or MMD renewed by way of a fraudulent application may not be declared "null and void". Instead, the mariner must be provided with an administrative hearing conducted under 46 CFR Part 5 where the credential may be revoked for misconduct. Such cases should be referred to the SIO.

C. Evaluation Of Records Of Convictions.

This section addresses various factors to consider when evaluating an applicant who has a criminal record, including DWI/DUI convictions. If the applicant holds or is eligible to renew a license, COR or MMD the SIO should be advised. The application process is then put on hold until the SIO advises on the outcome of an investigation. This requires close liaison between the Coast Guard Chief, Regional Exam Center and the SIO. If the application is for an initial license, COR, or MMD, the process is also placed on hold pending the outcome of a criminal and NDR records review by the REC.

1. Types Of Convictions.

Criminal convictions may serve as the basis for disqualifying an applicant for a license, COR or MMD. Some examples of criminal convictions that may disqualify an applicant include convictions for violations of national security laws; capital offenses such as first degree murder; armed robbery; rape; assault with a deadly weapon; embezzlement; other serious felony crimes; and crimes of moral corruption (see section D). Other criminal convictions may also serve as grounds for disqualifying an applicant for a license, COR or MMD for a reasonable period of time (assessment period). During the assessment period the applicant is given the opportunity to demonstrate rehabilitation. A reasonable period of time is generally a number of years from the date of conviction or release from jail and/or supervised probation, whichever is later. (see section D).

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Multiple criminal convictions may be more of an indication of an applicant being unqualified than convictions for multiple criminal charges arising from a single criminal incident. In judging multiple convictions, care should be used to discern if the convictions arise from multiple charges for a single incident or numerous incidents of criminal activity or over a long period. A single incident can result in multiple convictions for different crimes. Convictions for robbery, drug possession, assault and rape may stem from one event. Closely related to multiple convictions for a single incident is the concept of repeat offenders. Persons with a long string of criminal convictions, particularly for such serious crimes as murder, theft, robbery or burglary, sodomy or even less serious crimes and violations showing a flagrant disregard for the rules of an orderly society are unsuitable to hold a license, COR or MMD. Such persons, by their habits of life, have demonstrated that they cannot be trusted by society in general; thus, absent suitable evidence of rehabilitation, they certainly cannot be entrusted to perform the duties of a merchant mariner.

3. Recency Of Convictions.

Some persons rehabilitate themselves after conviction and become worthy of the trust required to hold a license, COR or document. A lack of recent convictions since any period of incarceration may be evidence of rehabilitation. However, generally, an assessment period should not be less than one year.

4. Additional Evidence Of Rehabilitation Or Reform.

In addition to time without subsequent convictions, there are other acceptable ways to demonstrate rehabilitation or reform. One of the most common is through the use of character references. These references should be carefully considered before being accepted. Parole officer recommendations may be considered. Character references which indicate knowledge of the applicant's convictions and attest to a demonstrated change in character or habits of life, with examples of how the applicant's behavior has changed, are generally more worthy than those which simply extol the applicant's virtues, e.g., those written without any knowledge of the applicant's history. Given the role drugs and alcohol often play in criminal activity, long-term participation in Alcoholics Anonymous, Narcotics Anonymous or other similar programs with support groups may be accepted as some evidence of rehabilitation or reform.

5. Relevance Of The Offense To The License, COR, or MMD Applied For.

Special relevance resides in the presence or absence of opportunity for the holder of a license, COR, or MMD to repeat their previous crimes while on the job. For example, a conviction for drug trafficking is particularly relevant when an applicant has requested a license, COR or MMD. Having a seafarer's document presents the opportunity to smuggle and traffic in controlled substances. This type of activity could also lead to impairment of the seafarer caused by the use of a controlled substance and endanger life or property at sea.

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A period of time without conviction is evidence of reform only when there is opportunity to demonstrate a rehabilitated life style. Time in prison will not count toward any of the assessment periods suggested in these guidelines. A period of time to interact with society is necessary for a person to prove they can successfully abide by society's laws and regulations. However, consideration should also be given to bad acts while in prison. Prisoners commit crimes while incarcerated. Such a record of behavior may be considered as evidence of a lack of rehabilitation. Time in prison will not be considered for any assessment periods required before issuing a license, COR or MMD.

7. Probation.

An applicant's parole/probation status is a factor in deciding if the applicant is qualified. An applicant in a closely supervised parole/probation status is not as trusted by society as is someone on unsupervised parole/probation. Time on supervised parole/probation should be given less weight and may be excluded entirely from any assessment period. However, the OCMI may include periods of probation and parole in the assessment periods with a letter of recommendation from a parole or probation officer. 46 CFR Parts 10.201(h)(2) and 12.02-4(c)(2) have been recently revised to clarify when assessment periods begin. Time on parole/probation may be considered for evidence of rehabilitation if all the conditions of the parole or probationary period were properly fulfilled. Conditions of the parole/probation should also be examined by contacting the appropriate court officer. Frequently conditions of parole/probation prohibit the individual from leaving the jurisdiction of the state or district in which the individual was convicted. This prohibits employment that is inconsistent with the conditions of the parole/probation.

D. Evaluating Criminal Behavior.

The following guidelines should be applied when evaluating applicants with criminal convictions. When evaluating the criminal convictions record, remember they had their day in court, defended by legal counsel. Do not allow yourself to be placed in the position of retrying the evidence that led to the conviction. The applicant will generally try to minimize the outcome of the conviction by introducing their perception of why they were convicted. This view is self-serving. Convictions must be taken at face value. In most cases you should insist upon a copy of the court's Decision and Order (D&O) or its equivalent. The D&O will show the charges and their outcome. Some will be more detailed, giving a short background of the case. When evaluating the qualifications of an applicant for a license, COR or MMD use the factors of section 3.C. and 3.A.4. as your guide. The assessment periods listed in 46 CFR Part 10.201(h) and 12.02-4(c) respectively, should be considered as suggested minimums and maximums. The evaluator must use judgment in deciding reasonable assessment periods.

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46 U.S.C. 7503 gives the Coast Guard authority to disqualify an applicant for a license, COR or MMD to any individual who has been convicted of a drug law violation within ten years preceding the date of application or who has ever been a user of or addicted to the use of a dangerous drug, including marijuana. However, the authority to disqualify an applicant is qualified in several ways. First, the statutory time limit on considering a conviction of this sort is a maximum of ten years from the date of the conviction. Second, an applicant who has been addicted to or a user of a dangerous drug may be evaluated if the applicant provides satisfactory proof of cure.

1. Drug Use Or Addiction.

Drug users must present strong evidence of reform/rehabilitation and a change in life-style in order to be considered for a license, COR or MMD. To show cure, as determined in the Vice Commandant's Decision on Appeal No. 2535 (SWEENEY), the RECs should consider the following information when reviewing applications of those who have been addicted to, or users of, dangerous drugs.

- a. Medical evidence of a cure. Cure is shown by completion of a bona fide drug abuse rehabilitation program designed to eliminate physical and psychological dependence. This is interpreted to mean a program certified by a government agency, such as a state drug/alcohol abuse administration or in the alternative, certified by an accepted independent professional association, such as the Joint Commission on Accreditation of Health Care Organizations (JCAHO); and
- b. Evidence that following the successful completion of the drug rehabilitation program, the applicant has demonstrated a complete non-association with drugs for a minimum of one year (SWEENEY, supra) or in accordance with present regulatory time requirements (46 CFR, part 5). This includes participation in an active drug abuse monitoring program which incorporates random, unannounced testing during that year.

2. Drug Convictions.

An applicant with one conviction, which is over a year old, for a small amount of marijuana may be eligible for a license or document before the expiration of a minimum assessment period. As an example, if the applicant completed any assigned periods of parole or incarceration and the conviction is over one year old with no other involvement (e.g., trafficking) the OCMI may consider issuing a license before the minimum assessment period has elapsed. Certain criteria must be met before this can take place. The OCMI must determine the applicant's involvement in the conviction. If the applicant was convicted of possession of a small amount of marijuana but did not use the drug and can furnish satisfactory proof from a drug counselor that the individual did not and is not using drugs, then the OCMI may issue the license or document. If an applicant has multiple convictions for drugs other than marijuana or trafficking, especially if the convictions are maritime related, the denial could extend to the full ten years. The length

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of time will be a function of the number and seriousness of the convictions and their relationship to the license, COR or MMD applied for.

3. Drug Arrests Without Convictions.

Absent a conviction, admission of use or admission of addiction to dangerous drugs may be grounds for disqualifying an applicant for a license, COR or MMD. A person may truthfully answer "no" to questions on the application concerning convictions, however, an arrest(s) may be an indicator that the applicant is or was a user of the dangerous drugs indicated on the arrest record. As such, they may prompt the evaluator to ask further questions to determine if the applicant was or is a drug user. A delay in the issuance of a license or document pending the results of a criminal records check may be encountered.

F. Alcohol Related Convictions.

Convictions for driving while intoxicated/driving under the influence are considered to be more than minor traffic violations and reflect unfavorably on the applicant's suitability to be entrusted with the duties and responsibilities of the license. They must be noted in Section VI of the application, or by a separate notation on the application. Applicants indicating conviction(s) of vehicular crimes shall be assigned minimum or maximum assessment periods in accordance with the regulations.

1. Driving While Intoxicated/Driving Under The Influence Of Intoxicants (DWI/DUI).

DWI/DUIs are serious matters and may indicate that an applicant should not be entrusted with the duties and responsibilities of a license, MMD or COR. Each applicant must be evaluated on an individual basis to determine if the DWI/DUI conviction(s) is indicative of a deeper problem affecting the applicant's qualification to hold a license, COR or MMD, or is the result of a single isolated failure of judgment. In evaluating applicants with DWI/DUI convictions, the evaluator must qualify the applicant based on the convictions, taking into consideration the number and severity of the convictions, recency of the convictions and evidence of rehabilitation/reform. The following guidelines offer additional factors for evaluating the qualification of an applicant with DUI/DWI convictions.

a. Single Conviction.

A single DUI/DWI conviction within the past three years may indicate the early stage of a developing, long-term problem, or that the individual having a well-developed problem was only caught once, or that this was an isolated incident of poor judgment. The evaluator should attempt to identify which of the possible scenarios is applicable.

(1) In cases where a long-term problem is developing and the conviction is over one year old, but less than three, the application should be processed unless a suspension or revocation is still in effect for a state driver's license. The applicant should be put on notice, in a letter, that their license may be in jeopardy.

(2) If the conviction is more than three years old, a conviction clearance is normally not necessary.

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(3) If the conviction is less than one year old, the application should be denied for a period of time sufficient to see if another incident will occur (at least one year from the date of the conviction).

b. Multiple Conviction.

For multiple convictions, the most recent being more than three years old, the application should be processed. The applicant should be put "on notice", in a letter, that further occurrences may jeopardize their license. If the applicant has multiple convictions, with any within the last three years, the evaluator may consider disqualifying an applicant for the license for at least one year since the last conviction and at least three years since the second most recent conviction unless satisfactory cure is shown.

2. Rehabilitation Evidence.

Acceptable evidence of rehabilitation/reform include the following: successful completion of an alcohol abuse treatment or education program; long term active membership in therapy, such as Alcoholics Anonymous; or positive character references from responsible persons who can attest to the applicant's long period of being sober and reliable and outlining the applicant's change in behavior since their offense.

G. Notice of Denial.

In all cases when an applicant is denied a license, COR or MMD, they must be notified by letter. The letter must include the reason for the denial, any remedy (e.g. assessment period, time off parole/probation, etc.), the right to appeal and the appeal process.)

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A. Physical Examinations.

Merchant Marine Personnel Physical Examination Report, Form CG-719K, is submitted with the application for a license or MMD when a physical examination is required. Any questions relating to physical requirements may be directed to the National Maritime Center. Guidance to assist medical personnel in conducting these examinations is found in NVIC 2-98.

B. Qualified Medical Personnel.

Physician will be used in this chapter to mean a licensed medical doctor (including doctors of osteopathy (D.O.)), a licensed physician assistant, or a licensed nurse practitioner. The above medical personnel must be licensed by a state in the U.S., a U.S. possession, or a U.S. territory. Foreign medical licenses are not accepted. A chiropractor is not acceptable as a physician; see 46 CFR 10.205(d).

C. Completing The Merchant Marine Personnel Physical Examination Report (Form CG-719K).

One of the major concerns of an evaluator is having the CG-719K completed properly. The CG-719K must be completed and signed by a physician. The license number, the state issuing the license, the address and telephone number of the physician must be included on the CG-719K. A random number of CG-719K's should be verified with the physician to check the information on the form. If any of the notations on the form are unreadable, unknown, or omitted, a quick call to the signer may clear up any misunderstanding and verify the applicant's condition. The evaluator is responsible to ensure that the applicant provides satisfactory evidence to show that he or she meets the physical requirements of the regulations. It is the applicant's responsibility to provide the necessary medical information to evaluate the application. If the information from the physician is incomplete or unacceptable, return the CG-719K to the applicant to obtain the required information.

D. Physical Standards.

The conditions discussed in this chapter are considered to be potentially disqualifying for the purpose of obtaining a license or MMD. They are not intended to be absolute or all-encompassing. One applicant could be unqualified due to a condition not listed here, while another applicant could have a listed condition and be qualified for a waiver. Waivers may be considered where extenuating circumstances are such as to warrant special consideration.

E. Unlicensed Seaman Physical Standards.

46 CFR Part 12, Certification of Seamen, refers to 46 CFR 10.205(d) when setting standards for unlicensed seamen. The following is a list of ratings and the standards they must meet:

1. Able seamen must meet the same physical standards as a licensed master, mate, or pilot.
2. Qualified member of the engine department (QMED) must meet same physical standards as a licensed engineer.
3. Tankermen must meet the same physical standards as a licensed engineer.

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F. Waiver Statements.

There is no regulation that requires the seaman to notify the REC when a physical waiver condition worsens during the license period. To prevent possible injury to the seaman and prevent a vessel from becoming unseaworthy the following statement will be placed on the license/MMD. "Any deterioration of a waived medical condition shall be immediately reported to the nearest REC." Under certain conditions OCMI's are authorized to grant waivers for the physical standards. This authorization does not prevent the OCMI from asking advice or further evaluation from NMC. Listed below are the standards for local waivers.

1. Vision.

There are two areas of concern with vision. One is the ability of the applicant to see at a distance (visual acuity) and the other is the ability to distinguish colors (color sense).

a. Visual Acuity Waiver.

Corrected visual acuity must always be at least 20/40 for deck officers and at least 20/50 for engineering officers (46 CFR 10.202(f)). All REC's are authorized to grant waivers to applicants who have an uncorrected vision no worse than 20/800 under the following conditions:

- (1) The applicant may not have a degenerative condition that would speed the deterioration of their eyesight. All applicants with diabetes must submit documentation from their doctor that the diabetes is not affecting the applicant's eyesight.
- (2) The license must contain a vision waiver notation that requires the mariner to wear the corrective lenses (contacts or glasses). A spare set of glasses (not contact lenses) must also be carried aboard the vessel for all individuals with a vision waiver.
- (3) The applicant must have 100 degrees, horizontal field of vision.
- (4) Every applicant with uncorrected vision of 20/400 to 20/800 must wear corrective lenses (contacts or glasses), and carry a spare set of glasses on their person. If glasses are worn, they must have an attached restraining device to keep them securely in place.

b. Color Vision.

The required tests for color vision are specified in the regulations and on the reverse of the Form CG-719K for deck officers. A deck officer must pass one of these prescribed tests. An exception may be made for restricted Inland routes. They may have their licenses endorsed "Vision Waiver: Restricted to daylight operation only." In granting a waiver the area (route) of operation must also be considered. If it is unreasonable to expect that the applicant would be able to comply with this restriction, additional area restrictions may be placed on the license. An example would be a license limited to a specific geographic area, e.g., "Montauk Point, N.Y. to Martha's Vineyard." The expectation is that the licensee would be able to comply with the daylight only operation.

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c. Monocular Vision.

Monocular vision is the ability to see with one eye only. A person may have both eyes functioning but due to a problem, such as cross fixation (cross-eyed), they have limited or no depth perception. These cases should be referred to NMC. For raise of grade or renewal applications, monocular vision is addressed in 46 CFR 10.207(e)(3) and 10.209(d)(3), respectively.

2. Hearing.

Hearing acuity presents two concerns for the evaluator. One is the unaided hearing response to certain frequencies and the other is speech discrimination ability at 55 decibels (dB).

a. Decibels (dB).

This is a measure of the power or loudness of sound. The higher the number, the louder the sound. Someone who can hear a 20 dB sound has better hearing than someone who can only hear a 60 dB sound. Normal conversation is at 55 dB, hence the speech discrimination test at 55 dB.

b. Standards.

Hearing shall be evaluated in accordance with NVIC 2-98.

c. Hearing Aid Waiver.

(1) Deck Department. Deck department personnel who cannot meet the above requirements may use hearing aids. Mariners with hearing aids who meet the auditory requirements of NVIC 2-98, may be granted a waiver by the OCMI. The license or MMD must show that a waiver was issued.

(2) Engineering Department. Hearing aids may not be used to meet the auditory requirements for Engineering licenses or MMDs. Concerns in the engine room include negative effects of hearing aids around loud noises. However, in some cases, impaired hearing is no worse in the engine room than an individual with hearing protection on. Outside the machinery space, such as the control room, an individual would likely need the hearing aid to use a telephone or to respond to audible console alarms. Engineers (licensed and/or documented) must be able to hear telephone bells/buzzers, general alarm bells, and CO2 sirens without aid in the engine room. A letter attesting to this ability shall be provided by the applicant from the vessels chief engineer or master. A waiver notation, if granted, shall be added to the license or MMD. Questionable cases should be referred to NMC for further review.

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d. Other Hearing Waiver.

Other conditions that do not meet the situations described above may be considered for a waiver when recommended by the OCMI. Such cases will be evaluated by NMC.

3. Mind Altering Drugs (Psychotropic Drugs).

Drugs used to treat psychiatric disorders are called mind altering or psychotropic drugs. Applicants requiring these drugs are no longer automatically considered ineligible for a license or MMD. Conditions treated by psychotropic drugs are separated into two distinct categories; psychosis and/or neurosis

- a. Waivers should be considered on a case by case basis for individuals with neurotic disorders (anxiety or depression). Supporting data shall include a strong recommendation from the attending physician confirming no adverse side affects from the medication over a one year period.
- b. Waivers are not normally approved for individuals with psychotic disorders (manic depression, schizophrenia). Although a person may have demonstrated control of the condition, it is not unusual that patients feel well and decide to reduce or stop medication. They often regress without realizing it. Given the limited resources available to assist a vessel's crew (as opposed to what is available ashore), an unacceptable risk to the vessel and crew may develop. All such cases shall be forwarded to NMC for evaluation. If a determination is then made that the mariner is competent to have a waiver granted, the license/MMD shall be endorsed with the appropriate waiver statement. "Physical Waiver: This waiver is granted on the condition that there is no further degradation of your condition. Any degradation shall be immediately reported to the nearest Coast Guard Regional Examination Center."

G. National Maritime Center Waivers.

Medical conditions that are beyond the scope of the REC to evaluate shall be referred to NMC. See paragraph 4.H for a discussion of those conditions.

1. As all waiver requests are from the **OCMI** and not the applicant, the applicant need not provide a letter requesting a waiver.
2. The request for a waiver should be sent directly to NMC. These requests are no longer required to be reviewed by the District offices.
3. Send only copies of the medical file and the current application package. [REMEMBER, COPIES ONLY].

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H. Medical Conditions Needing Further Review.

The following is a discussion of the medical conditions requiring further review by NMC. Although not all inclusive the medical conditions discussed cover those most frequently seen.

1. Diabetes.

A physical waiver is required for all applicants seeking an original, renewal, or upgrade of a license or MMD who have insulin-dependent diabetes or poorly controlled non-insulin dependent diabetes (see figures 4-1 and 4-2). In order to be considered for a waiver, applicants must provide thorough amplifying written information from their physician including statements covering;

- a. A brief history of the applicant's diabetes, including when the diagnosis was made;
- b. The extent of applicant's diabetes education by topics (for minimum requirements see Figure 4-1);
- c. Description of any hospitalization in the past 12 months;
- d. A description of the applicant's control of the diabetes;
- e. If insulin-dependent, the applicant's ability to monitor his/her blood glucose and adjust his/her insulin dosage;
- f. A description of any other chronic medical conditions;
- g. A list of the applicant's medications, dosage, and required dosage frequency;
- h. Length of time the applicant has been on the current dosage;
- i. Copies of the applicant's medical record entries for the past 18 months; and
- j. A copy of the laboratory report of glycosolated hemoglobin (HgbA1c), within the past 30 days. NOTE: Waivers will not be granted when test results are 10.0 and over as this indicates poor control.

2. Cardiac.

Cardiac infirmities are often beyond the scope of the RECs to handle. The list below indicates those conditions requiring further information, and most likely, a waiver. Cardiac medication is a good indicator that a significant coronary condition exists. When submitting the case for a waiver review a recent (less than 12 months old) stress test will be required.

a. History Of Myocardial Infarction(s).

Any such history must be described in the attending physician's report including "class" (class III or IV) of myocardial infarction(s).

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- b. Surgery.
Any cardiac surgeries, including cardiac pacemaker implant, bypass, etc., require further evaluation and thorough description(s) in order to facilitate thorough analysis by Headquarters medical staff.
- c. Heart Irregularity.
Irregularity sufficient to compromise cardiac function.
- d. Hypertension.
Uncontrolled hypertension or hypertension controlled by medication requiring close monitoring. Applications indicating uncontrolled hypertension or control by reserpine, guanethidine, guanadrel, methylopa, clonidine, or guanabenz must be evaluated by NMC. If the applicant's hypertension is controlled by diuretics, beta-adrenagic blocking agents, labetalol, hydralazine, minoxidil, prazosin, captopril, or calcium slow channel blocking agents, no further evaluation is required unless additional complications are noted by the examining physician.
- (1) original Licenses. Blood pressure higher than 150/90 regardless of treatment with medication.
- (2) Renewal Or Raise Of Grade. Blood pressure higher than 160/100 if under age 50 or 175/100 if 50 or over, on medication.
3. Physical Handicaps.
Conditions such as loss of limb or restricted motions of limb require a practical demonstration of ability. These demonstrations determine if an applicant can safely perform all duties entrusted to him/her by virtue of holding a license. The OCMI shall recommend the extent of the test to NMC for approval prior to the demonstration. If possible, an underway practical examination should be performed. The license may be approved at the local level with the OCMI imposing any necessary limitations.
- a. Operator of Uninspected Towing or Passenger Vessels (OUTV, OUPV) and Master Or Mate Of Less Than 200 Gross Tons.
A practical demonstration shall include the following elements:
- (1) Handling of mooring lines.
 - (2) Climbing and descending the vessel's ladder.
 - (3) Reaching, handling, grasping, and lifting lifesaving and fire fighting equipment required by the vessel's COI or applicable regulations.
 - (4) Donning and properly wearing a personal flotation device (PFDs); Helping passengers don PFDs; Casting ring buoys.
 - (5) Properly operating fire fighting equipment.
 - (6) Recovering a person who has fallen overboard.

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- (7) Rendering first-aid to a person who may be unconscious or otherwise incapacitated.
 - (8) Using shipboard tools to repair a mechanical breakdown.
 - (9) Properly use navigation/communication equipment if applicable.
- b. Deck And Engineer Officer Licenses.
A practical demonstration shall include the following elements.
- (1) Climbing and descending the ship's ladder.
 - (2) Climbing and descending a Jacob's ladder.
 - (3) Opening and closing watertight doors.
 - (4) Exiting vessel via emergency routes.
 - (5) Rowing a lifeboat.
 - (6) Wearing an emergency breathing apparatus.
 - (7) Reaching, handling, grasping, and lifting lifesaving and fire fighting equipment required by the vessel's COI.
 - (8) Donning and properly wearing a personal flotation device (PFD) and casting ring buoys.
 - (9) Deck Officers must handle mooring lines and operate winch controls.
 - (10) Engineers must operate valves and related machinery control equipment.
 - (11) Properly use navigation/communication equipment if applicable

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FIGURE 4-1: COMPREHENSIVE DIABETES EDUCATION PROGRAM

To include but not limited to:

1. The disease and its complications.
2. Diet management and weight control.
3. Types of insulin, characteristics and uses.
4. Storage, handling and administration of insulin.
5. Monitoring blood glucose.
6. Self-adjustment of insulin dosage in response to trends in blood glucose monitoring.
7. Effects of illness, injury, stress, heavy manual labor, exercise and other factors on diabetic control, insulin dose and diet.
8. The applicant's recognition when there is a loss of diabetic control

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FIGURE 4-2: RECOMMENDED CHECKLIST FOR DIABETES

(REC USE ONLY.) This list is for the REC to use to ensure that sufficient information is being given for the waiver. Do not send this list to the doctor.

1. Physician's statement that:

- applicant has completed a comprehensive diabetes education program.
- no hospitalizations within the last 12 months.
- applicant's diabetic control is stable.
- has total insulin dose per day varied less than ten units up or down (e.g., total range less than 20)?
- applicant is able to maintain diabetic control by monitoring blood glucose and appropriately adjusting insulin dosage.
- copies of medical record entries for last 18 months.
 - are there at least three entries?
 - are there less than six entries?
- the record supports the statement that the disease is stable. Any doubts refer to G-NMC-4C.
- no evidence of other significant conditions or diabetes- related illnesses.
[NOTE: Many illnesses may not be apparently related to diabetes; any doubts refer to G-NMC-4C.]
- Test: HgbA1C within one month of waiver request.
 - within normal limits?

2. Applicant's statement that:

- no hospitalizations within the last 12 months.
- he/she is capable of maintaining diabetic control by:
 - monitoring blood glucose.
 - adjusting insulin dose and other relevant factors.

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A. Examinations.

When an applicant's experience and training meet the requirements of the regulations, and they are eligible in all other respects, they must be examined if required by the regulations.

1. Examination Guides.

The content of each deck examination including unlicensed examinations, is found in Commandant Publication P16721.35, Guide for Administration of Merchant Marine Deck Examinations (Deck Guide). Commandant Publication P16721.47, Guide for Administration of Merchant Marine Engineering Examinations (Engine Guide) contains similar information about the engineering examinations. Both guides provide information about the number of modules in the examination, grading procedures, and special instructions necessary to administer the examination.

2. Exceptions To Examination Requirements.

An applicant is not required to be tested in the following situations:

a. Regulatory Exceptions.

The licenses specified in 46 CFR 10.903(b) do not require an examination. In addition to these, the holder of a license issued under Subchapter B of the regulations revised in 1987, as master or mate of vessels of 500 gross tons, is not required to test for an increase in scope to 1600 gross tons on the same route. However, applicants holding a master 500 gross tons license received prior to the 1987 revisions, who have not taken the master 500/1600 gross tons exam, and apply to raise their license to master 1600 gross tons, must take the appropriate exam. A master or mate licensed for vessels of less than 200 gross tons on any rivers route may have the tonnage limitation increased up to 200 gross tons (same route) based on service only.

b. Removal Of Limitations.

A license with a special limitation imposed by an OCMI may not require an examination for removal of the limitation. No further examination is required if the original examination was of sufficient scope and depth for the change. In special cases involving the lifting of limitations, where the Commandant's evaluation is desired, the request submitted to the National Maritime Center should contain all information pertinent to the current limitation, including the license file from the issuing office, if available. If the license file is not available, the reason for the limitation shall be obtained from the issuing office and stated in the request.

3. Standard Modules.

There are over 1,000 modules supporting the deck exams and over 200 in support of the engineering exams. These modules are centrally stored on computer and downloaded at the REC when needed. They are periodically replaced, with some modules replaced each month. Modules that are used extensively, such as the Rules of the Road modules and those used for lower level licenses, are replaced more frequently. If an applicant requires a module, but it can not be downloaded in time, contact the Examination Administration Branch at the National Maritime Center. The module will be forwarded by a suitable medium, including FAX, E-Mail or overnight mail, to meet the examination date. If frequent or continuous problems with downloading are experienced, assistance must be sought through the system specialists, Commandant (G-MRI) at (202) 267-0790.

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4. Local Examinations.

While the standard modules meet the requirements for most examinations, some situations require examinations prepared for local conditions. In these situations, the following guidelines apply:

a. Number Of Questions.

The number of questions in a locally prepared examination should not exceed the number of questions in a standard exam for a comparable license. If possible, the total number of questions should be such that the passing grade equates to an exact number of correctly answered questions.

b. Question Selections.

The examiner shall select questions based on the following factors: (1) Suitability of the individual questions for the license; and (2) Overall coverage of the subject.

c. Modification Of Standard Modules.

Often, a standard examination module may be modified to serve as a locally prepared examination by deleting questions that do not apply to the testing situation.

d. Local Knowledge For Pilot's Examinations.

RECs testing applicants for pilotage routes shall develop a module titled "Local Knowledge". If the route includes areas outside the zone of the parent MIO/MSO, the cognizant OCMI shall be consulted for local information about the area within that zone. The questions included in the local knowledge module may include anything particular to the pilotage route. Typical subjects for testing in local knowledge include: traffic separation and advisory schemes, weather, route description, currents, tides, prominent landmarks, geography, bottom configuration, local communications, availability and capability of tugboats, etc. This list is not all inclusive and not all of the above will apply to each route. For grading purposes, this is a practical navigation module (see Para 5.A.4.f.).

e. Chart Sketch.

- (1) RECs must develop standards for the chart sketch required of pilotage applicants. These standards may include, but are not limited to the symbols required, depth information, horizontal and vertical clearances, types of aids to be shown, courses and distances, shoals, reefs, and other underwater hazards, grading procedures, etc. In grading a chart sketch any information shown that would hazard a vessel is grounds for failure. For example, if a narrow channel runs 304 degrees true for 1.8 nautical miles and the applicant shows the channel at 314 degrees true, this is cause for failure. Omission of minor or inshore aids not directly affecting the route are minor errors. While each minor error is usually not sufficient grounds for failure, an accumulation of them indicates a general unfamiliarity with the route. Each REC must set the standards for the various pilotage routes within their zone(s).

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- (2) Whenever possible, provide applicants with the outlined paper to be used in the chart sketch. If there are no local resources to print these outlines, the applicant may trace them from a chart while in the exam room. Applicants will not be permitted to bring an outline with them since pin-pricks, faint markings, incidental markings, folds, etc. could provide clues to the information required to be drawn on the sketch.
- f. Grading Of Nonstandard Examinations.
The passing grades for nonstandard examinations should be similar to the passing grades for the standard examinations. The passing grades for the standard examinations are:
- (1) Practical navigation (licenses not more than 100 gross tons) - 70%.
 - (2) Practical navigation (licenses over 100 gross tons) - 90%.
 - (3) Rules of the Road - 90%.
 - (4) All other deck and engineering subjects - 70%.
5. Orally Assisted Examinations.
Orally assisted examinations are permitted by 46 CFR 10.205(i). Applicants should attempt the standard written examination initially. If they demonstrate difficulty in reading, they may test with an orally assisted examination. This is a time consuming process. Encourage applicants to test with the standard modules and advise them of the limitations to be placed on the license. The following procedures shall be followed in administering an orally assisted examination. **Only the OCMI/REC is authorized to administer an orally assisted examination.**
- a. Standard Modules.
Candidates will normally be tested with standard examination modules unless a locally prepared module is appropriate.
 - b. Reading Of Questions.
The examiner shall read the questions to the applicant exactly as they are printed in the module. Read the questions in a normal tone of voice with the proper inflections as indicated by normal usage of the English language. When reading the four possible answers, read each one with the same tone. Do not stress or give any other indication of the correct answer. Questions may be repeated once to ensure understanding by the applicant. Do not discuss the content or meaning of either the questions or the possible answers.
 - c. Recording Of Answers.
Record the answers on a standard answer sheet. If standard modules are used to test the applicant, a notation to this effect shall be enclosed in the applicant's file. If locally prepared modules are used, the subjects included in the test must be listed in the file as indicated in 46 CFR 10.205(i).

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- d. Renewal Of Licenses.
Licenses issued as a result of an orally-assisted examination may be renewed through an oral-assisted renewal exercise.

6. Obtaining Examinations For Remote Testing.
RECs/MUs may order large quantities of examinations from the Examinations Administration Branch at the National Maritime Center for remote testing. Allow at least four weeks for delivery. Individual modules may be provided via FAX, overnight mail, or E-mail if necessary. Modules for testing individual applicants are normally downloaded and reproduced at the REC as required. Precautions should be observed to prevent compromise once the materials are printed. Upon completion of the exam, the materials should be destroyed.

7. Conduct In The Examination Room.
A sample Examination Room Rules sheet can be found in the Deck and Engine Examination Guides. RECs should provide each applicant with this information and any local rules including the operating hours of the examination room. As part of this information, advise the candidate to read the instruction page included in every module.

8. Testing Materials.
The reference materials required and authorized in the examination room are listed in the Deck Guide and the Engine Guide.

9. Calculators.
Applicants may use calculators but not preprinted forms during the examinations. All calculators must meet the following standards:
 - a. It must not use pre-programmed strips or chips or any other pre-programmed device which may be inserted into the calculator.

 - b. It may not be a permanently-programmed, specialty computer such as a navigation computer. Computers capable of generating trigonometric functions, logs and antilogs, squares, cubes and the roots thereof are acceptable provided they meet all other requirements.

 - c. Any manually programmable calculator without simple erasure capability is not permitted.

10. Time Limits.
Refer to Deck and Engine Guides.

11. Answer Sheets.
Refer to Deck and Engine Deck Guides.

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12. Examination Questions.

The Examination Administration Branch at the National Maritime Center tries to ensure that all test questions are clear, concise, and understandable. Occasionally errors arise.

a. Module Errors.

RECs/MUs detecting obvious errors in a module should contact the Examinations Administration Branch at the National Maritime Center immediately to resolve the situation.

b. Discussion With Applicants.

Examiners should not discuss the content or quality of a question with a candidate.. If an applicant disputes a question, advise the applicant to select the best possible answer and complete a Comment/Protest Sheet. (A sample Comment/Protest Sheet is shown in the Deck and Engine Exam Guides.) After grading, an applicant often wants to know what questions were marked wrong. Workload permitting, examiners may show applicants incorrectly answered questions. If an applicant disputes the correct answer, advise him/her to complete a Comment/Protest Sheet.. Comments will not be used to change his/her grade; however, if the applicant failed by no more than two questions, a Protest may be filed.

c. Comments.

Applicants' remarks provide valuable input into improving the quality of the questions. Applicants should be encouraged to complete a Comment/Protest Sheet for any question that can be improved. A comment may be submitted at any time in the testing process.

d. Protests.

A comment becomes a protest when all of the following conditions apply:

(1) The form must be completed before the applicant leaves the examination room;

(2) The candidate must have a failing grade on the module;

(3) The comment must be about a question that was answered incorrectly; and

(4) If credit for a correct answer were given for a question commented upon, it would change the failing grade to a passing grade.

e. Failing Modules By One Or Two Questions.

Any applicant failing a module by not more than two questions can review the module and answer sheet before leaving the exam room area. Applicants may then protest any questions answered incorrectly. Provide the applicant with a copy of the answer sheet for review to prevent alteration of the original.

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f. Processing Protests And Comments.

The protest(s) and answer sheet(s), CG-5164, should be faxed to the Examinations Administration Branch at the National Maritime Center immediately. Protested questions are reviewed for errors. If the question or answer is wrong, the protest is allowed thus affecting the final grade. A correct answer must be given by the applicant. All work to arrive at mathematical answers must be shown and forwarded for review. A copy of the applicable portions of the chart or plotting sheet should be faxed when plotting accuracy is involved. RECs are notified of the results as soon as possible by fax with telephone follow up whenever possible. If two modules are graded together, then provide both Answer Sheets. Retain comment sheets at the unit until the last working day of the month and then forward them to the Examinations Administration Branch at the National Maritime Center.

13. Practical Examinations.

a. Lifeboatman.

Examination centers with a model lifeboat shall test lifeboatman applicants using the model. Those centers that do not have the model should require applicants to present a letter of certification from a ship's deck officer attesting to their ability to raise and lower a lifeboat and their knowledge of the proper commands and nomenclature for such. The contents of the test are specified in the Deck Guide. A sample letter of certification is included in the Deck Guide.

b. Signaling.

Applicants for ocean or near coastal deck licenses authorizing service on vessels of over 1600 gross tons must pass a practical signaling test. The details of the test are in the Deck Guide. An applicant can complete the signaling portion anytime within one year of passing the written part of the examination. There is no limit to the number of times an applicant may be retested with the flashing light examination. If an applicant continues to fail the signaling exam, he/she may issued a license limited to 1600 gross tons (46 CFR 10.401(h)). However, this limited license option is not available to maritime academy applicants. Replacement tapes for the examination are available from the Examinations Administration Branch at the National Maritime Center.

c. Able Seaman (Knot Tying).

The details of this part of the AB's examination are contained in the Deck Guide. Because of the specialized knowledge required by the examiner to supervise this part of the examination, RECs/MUs may have to contact a local Coast Guard unit for assistance in training the examiners or testing the applicants. Testing at an REC/MU is the preferred method; however, an alternative is for the candidate to provide a letter of certification from a ship's officer, attesting to the applicant's ability to make the required knots, hitches, and splices. A sample letter of certification is included in the Deck Guide.

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14. Examination Scheduling For Academies.

The graduating classes of state and Federal maritime academies may be examined at any time after the first semester of the senior year.

15. Examination Failures.

a. Completion Of Examination.

Applicants should not be stopped from testing even if they fail three or more modules. This ensures that if there is any change to the examination through the protest process or a correction to the exam is necessary, the applicant will not be penalized.

b. License And MMD Reexamination Policy.

Applicants may be reexamined at any time mutually convenient to the examiner and the applicant. There is no minimum waiting period between the first examination and a reexamination. Applicants failing several portions of an examination or those failing one module with an extremely low score should be encouraged to study before attempting a reexamination. The MAXIMUM number of times a module may be taken by any applicant in an exam cycle is THREE. If an upper level license applicant fails only one or two modules, then the individual may be retested twice on the failed module(s) during the next three months. If three or more modules are failed, then a complete reexamination must be taken. If the applicant only fails one or two modules on the second sitting of the exam, then the individual may retest one more time on the failed module(s). However, if the applicant again fails three or more modules on the second sitting, then the individual must wait for a new exam cycle and retest on all topics. See 46 CFR 10.217(a)(1) for amplifying guidance. The specific reexamination policy for all lower level applicants is in 46 CFR 10.217(a)(2).

16. Examinations For Coast Guard Military And Civilian Personnel.

Coast Guard personnel (military or civilian) employed in an REC/MU may apply for a license or MMD. If the district commander approves the applicant's request, notify the Examination Administration Branch at the National Maritime Center of the desired license or MMD endorsement. To avoid any hint of collusion or impropriety, the Examinations Administration Branch at the National Maritime Center will provide a special examination for testing such applicants. The modules in this examination will be one-time editions similar to the standard modules. The applicant may test at any REC/MU including the one where employed.

17. Requests By Foreign Governments To Examine Individuals.

If a foreign government requests that such a program be established, the Examination Administration Branch will endeavor to accommodate them based on the request and circumstances. Once a program is established, the following procedures are required:

- a. The foreign government must send a letter on behalf of a named individual to the REC certifying that the service and training requirements of the foreign administration have been met.

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- b. When the REC is satisfied with the individual's qualifications, the examination may be scheduled.
- c. Prior to testing, the individual must pay the appropriate user fee.
- d. Individuals successfully completing the examination will receive a U.S. Coast Guard letter attesting to that fact. This letter will not provide Coast Guard certification of competency or authorization to serve in any licensed or unlicensed capacity.

18. Examinations Monitored For Another REC.

Applicants for a pilot's license/endorsement may apply at an REC that does not have testing responsibility for the pilotage area. The applicant should provide all of the required documentation which will be forwarded to the cognizant REC for evaluation. If the cognizant REC does not provide forms with the shore outline, the outlines of the shore area to be used in the chart sketch shall also be forwarded for review. If the application is approved, the cognizant REC shall provide the local knowledge part of the examination, any other specific information necessary for the applicant or the administering REC, and return either the approved outlines of the shore area or supply the Coast Guard provided forms (where applicable) with the shore outline. After the test is administered, the testing REC shall return the answer sheets for the local knowledge questions and the chart sketches to the cognizant REC for grading. Centrally distributed examinations, such as Rules of the Road, should be graded by the testing unit and the cognizant REC advised of the scores. If the applicant passes the exam, the cognizant REC shall advise the testing REC of the specific wording to be endorsed on the license.

B. Custody And Security.

Compromise of an examination module causes the removal of that module from service and requires a replacement. To reduce the probability of compromise, standard security procedures must be followed at each unit. With the advent of RGES, electronic security as well as security for printed materials must be considered. Proper security procedures conscientiously executed by all hands are essential. The following procedures shall be followed by all RECs/MUs:

1. Responsibility.

The OCMI shall designate in writing a custodian to oversee the security of all examination materials. Alternates may also be designated. Before assuming this responsibility, the custodian shall inventory all printed exam modules currently held and review the established information systems security procedures.

2. Stowage.

Stow any printed modules held in a lockable container such as a safe, file cabinet, or desk drawer. Keep all modules in a location where unauthorized personnel cannot take a module surreptitiously. At the close of the workday, account for all modules used. Establish a routine and the responsibility for locking all stowage containers.

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3. Receipt of Printed Modules.

Upon receipt of printed modules for special situations such as supplying a TET, inventory the contents of the shipment with the forwarding letter. Report any deficiencies to the Examination Administration Branch at the National Maritime Center. Acknowledge receipt of the modules by signing a copy of the U.S. Postal Service Return Receipt postcard and returning it to the Examinations Administration Branch. If the package is received in a damaged condition or with evidence of tampering, notify the Examination Administration Branch.

4. Examination Log.

Prior to using a module for testing, the examiner shall conduct a page check to verify the module is complete, and that it doesn't have unauthorized marks in it. A log of candidates shall also be maintained. At a minimum, the following information shall be included:

- a. Date of examination;
- b. Candidate's name;
- c. Examination title;
- d. Module number;
- e. Examiner's initials to indicate that the modules were returned intact; and
- f. Candidate's score.

5. Compromises.

A compromise occurs when the possibility exists that a module's contents have been exposed to unauthorized persons. When this occurs, notify the Examinations Administration Branch at the National Maritime Center by phone. Advise the details of the situation and the probability of actual exposure to unauthorized persons. The OCMI shall conduct a local investigation into the circumstances of the case in accordance with the Investigations Manual, COMDTINST M5527.1. Forward a copy of the completed investigation to the Examination Administration Branch.

6. Destruction Of Examination Materials.

Applicants shall turn in all scrap paper, charts, and other working materials used during an examination. Destroy these materials after any pending protests have been resolved. Outdated modules that are replaced shall be discarded and, preferably, recycled.

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A. Background.

When the seventeen Regional Examination Centers (RECs) were established in 1982, the use of Traveling Examination Teams (TETs) was offered as a means to lessen the impact on mariners who live and work in areas remote from the RECs. Subsequent budgetary constraints in the mid-80's caused a substantial reduction in the use of TETs, and a reduction of services provided to marine industry personnel. The Coast Guard Authorization Act of 1986 provided a solution to this problem by authorizing the marine industry to reimburse the Coast Guard for travel and subsistence expenses incurred in administering examinations at remote locations (46 U.S.C. 7504).

B. Mission Performance Standard.

The minimum mission performance standards listed below are established for serving license or document applicants in remote areas. It is recognized that limited personnel resources and scheduling considerations may prevent the fulfillment of these standards.

1. Number Of Trips.

A TET is appropriate whenever a group of at least 20 applicants in one remote area has been determined to be fully qualified for examination. If there are enough qualified applicants, one TET trip will be made monthly to each remote area. Applicants must be determined to be qualified sufficiently before the scheduled trip to allow for the routine administration of the program (normally 7 to 10 days).

2. Testing Of Non-Students.

TET sponsors must provide non-students access to the examination. The sponsor will be permitted to pass on a reasonable portion of exam specific expenses to these examinees.

3. Dual Purpose Travel.

The TET funding mechanism is currently the only available option due to statutory authority, Coast Guard budgetary restrictions, and a desire to treat all mariners equitably. One result of requiring reimbursement is that individuals from remote areas are discouraged from seeking the required licenses. RECs should use any innovative means to reduce the need for reimbursable expenditures such as dual purpose travel. EXAMPLE: Administer examinations during a vessel inspection trip.

4. Remote Area.

A remote area is one that is more than 150 miles from the nearest REC or the site of another TET visit. OCMI discretion allows for TETs to be dispatched to locations within the 150 mile radius dependent upon personnel resources at the REC.

5. Use Of Coast Guard Auxiliary Personnel.

To augment existing REC personnel, members of the Coast Guard Auxiliary are authorized to examine applicants at the discretion of the local OCMI.

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6. Discretion Of The OCMI.

Additional TET trips (including foreign TET trips) may be scheduled at the discretion of the Officer in Charge, Marine Inspection (OCMI).

C. Reimbursement.

Except for trips made to the schools receiving federal aid under 46 CFR Part 310 for the examination of students as required by 46 CFR 310.3(b)(2), or those examined at the U.S. Merchant Marine Academy, all TET trips will be conducted on a reimbursable basis.

D. Administration.

The following procedures will apply to all TET trips, except as provided for in paragraph 6.C.

1. Travel Order Number (TONO).

When a TET trip is warranted, RECs shall forward a request for a TONO(s) and accounting data to NMC-4C. This request should be made by E-Mail or telefax. If the TET trip is approved, a TONO(s) will be issued by NMC-4C.

2. Letter Of Undertaking (LOU).

A single billing source must be provided for each group of applicants. This source may be an individual, organization, or company who agrees to reimburse the Coast Guard. This individual, organization, or company shall submit a LOU that must be received by the REC before the commencement of any travel. The LOU shall contain the following information (a sample response to requests for TET services and a sample LOU are shown in Figures 6-1 and 6-2):

- a. An agreement to reimburse the Coast Guard for all travel and per diem costs incurred in providing the TET services;
- b. The name and address of the individual, company, or organization to be billed; and
- c. An agreement to provide adequate testing facilities for the applicants to be tested. This may be waived if the OCMI will provide the space.

3. Travel Log.

A travel log shall be maintained for each TET trip. If two or more groups are tested on the same trip, the completed log must reflect how the total chargeable expenses should be prorated among the groups (See Figure 6-3). Travel logs should be retained at the REC.

4. Billing.

To facilitate billing for the TET trip, the following material shall be submitted to NMC-4C upon completion of the trip:

- a. Letter(s) of undertaking;
- b. Copy of travel orders (CG-4251);
- c. Copy of travel voucher or subvoucher (DD 1351-2); and

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- d. Copy of travel summary of expenses from HRSIC
- E. Acceptance of In-Kind Travel and Travel-Related Expenses.
The acceptance of company or applicant supplied meals, transportation, or lodging is prohibited, unless no other arrangements (e.g., for reimbursement in accordance with 46 U.S.C. 7504 and the procedures set forth in paragraph 6.D. of this Volume) can be made; and the acceptance of such expenses complies with the requirements of the Standards of Ethical Conduct for Employees of the Executive Branch, 5 CFR 2635. If it is necessary to accept in-kind and travel-related expenses, prior approval shall be obtained from NMC-4C. Remember that the examination procedure is the only means available to the Coast Guard for determining an applicant's professional competence. Thus, the same vigilance used in the REC examination room must be maintained in external relationships with those requesting TET assistance

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FIGURE 6-1: SAMPLE RESPONSE TO TET REQUEST

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Dear Sir:

Title 46 United States Code 7504 authorizes the reimbursement of Coast Guard expenses incurred in conducting licensing and/or seaman documentation services at a location other than at the Regional Examination Center. That reimbursement is limited to travel and subsistence expenses.

Accordingly, before the service you have requested in your (letter) (telephone call) of _____ can be scheduled, this office must be assured that the Coast Guard will be reimbursed for the expenses incurred. This assurance may be provided by completing and signing the enclosed Letter of Undertaking and returning it to this office. The letter also certifies that you will provide adequate testing facilities for the requested service.

The following conditions must normally be met before a TET will be authorized:

1. There are at least 20 applicants whose applications have been evaluated and found to be qualified.
2. A TET trip will normally be provided only for locations in excess of 150 miles from this office or another TET site.
3. The completed application and supporting documents for each individual must be received by this office at least ten working days prior to the anticipated testing date.
4. Only individuals with previously approved applications will be examined.

Sincerely,

Encl: (1) Letter of Undertaking

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FIGURE 6-2: SAMPLE LETTER OF UNDERTAKING (LOU)

(Date)

To: Officer in Charge, Marine Inspection

(REC zone)

LETTER OF UNDERTAKING

I agree to reimburse the U.S. Coast Guard for all travel and per diem costs incurred in conjunction with the Traveling Examination Team services performed at _____ on _____.

I further understand that I must provide suitable testing facilities for these testing services.

(signature and title)

Name and Address:
(for billing)

Daytime telephone:

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FIGURE 6-3: TET TRAVEL LOG

EXAMINER: _____ TONO: _____ DATES OF TRIP: _____

Applicant	Billing Address	Location of Visit	Number of Days	% of trip	Mileage	Meals/ Lodging

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A. Background.

The Coast Guard's policy with respect to maritime training is changing as a result of several influences. These include the development of new technology, obligations resulting from the implementation of the Standards of Training, Certification and Watchkeeping (STCW), and the economic realities faced by both the Coast Guard and the maritime industry. Labor saving technological advances have resulted in smaller crews and the elimination of traditional apprentice/training billets. STCW requires mariners to demonstrate practical proficiency, as well as knowledge, prior to the issuance of documents and licenses. The Coast Guard is required to meet its responsibilities regarding marine safety and environmental protection with fewer resources each year. The maritime industry needs to operate its vessels in the most cost effective manner possible while also meeting its obligation to employ well trained, competent mariners using clearly defined and understood procedures to safely operate the vessels. Well designed training programs, including the integration of simulators, can provide the mariner with a quality training experience.

B. Requirements.

The Coast Guard will consider granting approval of a course or training program for one of the following reasons:

1. The course is required by regulation.
2. The course substitutes for part of the sea service required for issuance of licenses and certificates.
3. The satisfactory completion of a course is substituted for a required examination.

C. Course Approval Application Procedures.

1. The course approval process is explained in Title 46 of the Code of Federal Regulations, Part 10, Subpart C (46 CFR 10.301 - 10.304). An organization desiring to have a course approved by the Coast Guard must submit a Course Curriculum Package to the Commanding Officer, National Maritime Center (NMC-4B) at 4200 Wilson Blvd.; Suite 510; Arlington, VA 22203-1804.
2. Course approval submissions must document that the course covers the material necessary to satisfy regulatory training requirements. Specific course guidelines produced and used by the Coast Guard for the review of approved courses are discussed below and may be obtained through the Internet via the Marine Safety Web site at www.uscg.mil/hq/g-m/gmhome.htm or by writing the Commanding Officer, National Maritime Center (NMC-4B). The course curriculum package should consist of the following:

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a. Cover letter.

The cover letter consists of:

- (1) the identity of the school;
- (2) the name of the course;
- (3) the length of the course;
- (4) what regulatory/STCW requirements will be satisfied;
- (5) what examination requirement the course will substitute for;
- (6) the sea service requested;
- (7) the location of the training facility; and
- (8) whether the course will be offered at satellite locations.

b. **Course framework.** This section provides an overview of the main components of the course and establishes the purpose of the course. The framework consists of:

- (1) Scope.
A brief description of the regulatory, sea service, or examination requirement the course seeks to satisfy. Where sea service credit is the objective of the course, justification must be provided for the sea service credit requested.
- (2) Objective.
A statement discussing the goal(s) and overall learning objective(s) of the course.
- (3) Entry standards. A list of the prerequisites a student must have to attend the course, such as minimum amount of sea service, mariner's document or license, etc.
- (4) Class limitations.
 - (a) Class size. State the maximum number of students to be admitted for classroom lessons and, if appropriate, for practical demonstrations or simulation program lessons, along with the number of the students per simulator.
 - (b) Student/teacher ratio. State the student/teacher ratio and discuss the organization's policy for circumstances when more than one instructor will be present during any of the lessons.
 - (c) Instructors. Provide a resume for each instructor designated to teach the course that includes a description of his or her experience, background and qualifications. NVIC-5-97 and NMC Policy Letter 6-98 provide guidance on instructor qualifications. The instructor must hold a valid Coast Guard license, MMD, or other professional certificate appropriate to the maritime subject(s) being taught, or have unique qualifications specific to non-maritime subject(s) being taught, such as welding, first aid, or CPR.

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(5) Teaching facilities and Equipment.

(a) Facility.

This should include the address and a description of the facility at which the training will be held. This includes a detailed training facility site plan, labeled, and to scale, showing the arrangement of student's desks, instructor's area, training aid placement, aisles, doors and fire exits.

(b) Course equipment.

A description of the equipment that will be used during the course. This is to include all equipment used during hands-on training and/or testing, and any simulators or simulation programs. If a simulator or simulation program is used, technical and performance specifications must be included. For courses satisfying STCW training requirements, any simulator required to be used must meet the applicable performance standards.

(c) Teaching aids.

(d) Visual aids.

A discussion of how audiovisual and other aids will be used during the training course, and which performance objectives they will impact should be included in the lesson plans.

(e) Textbooks.

Include copies of all student handouts, homework assignments and/or workbooks, and a bibliography of the student textbooks to be used.

Note: If the NMC does not have the textbooks available, copies may be required for review. Texts will be returned after the course has been evaluated.

c. Instructor's Manual.

The instructor's manual provides specific guidance on teaching strategies and techniques used during the course of instruction. Include a copy of the instructor's manual when requesting an original course approval. The manual should address the course presentation strategies and is to include the following:

(1) Course Outline.

The course outline will be given to each student. This outline should indicate the subject areas, topics and sub-topics comprising the body of the course

(2) Course Schedule.

The course schedule includes the length of each lesson and indicates whether the lesson is a classroom lecture, practical demonstration, simulator exercise, other lab exercise or examination. The subject matter headings should correspond to the subject areas listed in both the *Course Outline* and the *Learning Objective Syllabus*.

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(3) Learning Objective Syllabus.

The Learning Objectives Syllabus should be written in the IMO Model Course learning objectives format. References should be made to the learning objectives indicating which publications and teaching aids the instructor will use when preparing and presenting the course material. The syllabus is to include the total length of each subject area in hours.

(4) Lesson Plans.

Lesson plans should be provided for each subject or class session. An exception will be permitted for training organizations recognized by an accrediting or training organization whose courses are approved by a USCG accepted QSS organization.

Samples of a course outline, a course schedule, and a learning objective syllabus may be obtained through the Internet via www.uscg.mil/hq/g-m/gmhome.htm or by writing the Commanding Officer, National Maritime Center (NMC-4B).

(5) Examination and Assessment.

Include an explanation detailing the methods of evaluating students' performance throughout the course. Include the following as applicable:

(a) Written examinations.

Schools should submit copies of all written examinations (multiple choice, subjective essay, or combination) and the grading procedure to be used. The frequency of revision of exams, a description of the methods of selecting multiple choice questions for each examination to be administered, and the passing score for the examination should also be submitted.

NOTE: "Simple" multiple choice format questions about the computational process can not be accepted where computational problems are necessary for determining the student's acquisition of knowledge, such as navigation problems. However, a computational problem in which the student must work through the solution and select from multiple answer choices is acceptable, e.g. questions comparable to those used for Navigation Problems on Coast Guard license exams.

(b) Practical demonstrations.

Detailed descriptions of all practical and/or simulator demonstrations, tests, and practical exercises that describe the exercises to be presented to the student. This should include copies of the evaluation process standards for each exercise, separate checklist(s) used to evaluate and record each practical demonstration, the evaluation process to determine competency, and the process by which each student's performance will be evaluated.

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(c) Determination of final grade.

A discussion of how the final grade will be determined, including proportioning written examination scores and practical demonstration output performance as appropriate.

NOTE: Homework and other out-of-class assignments will not be considered as acceptable portions of the student's final grade.

(d) Re-test procedures.

A description of the school's policy on re-tests of failed examinations and other assessment methods and the method of providing an unsatisfactory course completion.

(e) Course Critique.

Submit a student course critique. A student course critique provides one method by which students are given the opportunity to provide feedback to the training organization on the suitability of the course, the instructor's overall performance, suitability of training aids, etc. All forms providing the student the opportunity to submit evaluation to the training organization are to be included with the approval request. Completed student course critiques should be maintained with all other records

D. Training and Granting Sea Service Substitution Criteria.

Courses that are found satisfactory in all respects, e.g., meet or exceed U.S. Coast Guard and/or IMO standards, may be evaluated by the National Maritime Center staff, upon request, to determine and grant a reasonable equivalent amount of sea service credit for the successful completion of the training. The factors considered when determining the granting of sea service credit for approved training are provided below: Sea Service equivalency can not be used to reduce sea service below that required by STCW or 46 CFR Part 10.

1. Course Characteristics

The NMC will consider the characteristics of the course and the type of training being conducted. Generally, sea service may be credited on the following basis:

Classroom lecture	2:1
Part Task Simulators	4:1
Full Mission Simulator	6:1

When training involves a combination of the above, sea service is to be awarded on a pro rata basis proportionate to the amount of time devoted to each type of training (7 hours = 1 day). For example, a course involving 14 hours of classroom lecture and 14 hours of full mission simulator exercises would receive 16 days sea service credit (2 days classroom at 2:1 and 2 days full mission simulator at 6:1). The above guidelines should be applied to new courses and to existing courses at the time the course is renewed. "Specialized" sea service may be awarded, as appropriate, on the basis of 2 days credit for 1 day of training (7 hours). The amount of sea service awarded shall not exceed 10% of the required

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service. For example, up to 9 days tank vessel service may be awarded for a dangerous liquids course (90 days service required for endorsement).

2. Consistency with Other Courses.

Once the sea service credit has been determined the scope of training provided, the course is to be compared with similar courses which have already been approved to ensure consistency of standards.

3. Underway Training.

The accrued sea service, as a result of participation in MARAD approved schoolship programs or training cruises, is credited at 1.5:1, or "time and one-half." MARAD is the approval authority for maritime academy programs and uses this ratio, based upon a 12-hour, standard day, in addition to the fact that the program consists of a structured program of on board instruction. Sea service credit is granted for individuals/students completing cruises aboard commercial vessels and is provided at a 1:1 ratio, or day for day.

4. Constraints on Sea Service Credit.

Credit granted for training time must be in compliance with the STCW 1978 as amended; or 46 CFR Part 10, Subpart C; or Section 7315 of Title 46 U.S. Code (46 U.S.C. 7315).

- a. STCW suggests that a maximum of two-thirds of the required service for a deck officer in charge of a navigational watch can be substituted by school time. For example, if one sea-year of experience (360 days) is required of a deck license applicant, 240 days of the at-sea experience may be substituted by training. The remainder of the experience (120 days) must be obtained at sea.
- b. Satisfactory completion of approved training courses may substitute for up to two-thirds of the required service on deck or in the engine department respectively for deck or engineer licenses. Satisfactory completion of approved training courses may substitute for up to one-third of the required service for a qualified deck rating, or up to one-half of the required service for qualified ratings in the engine department, or as provided by 46 CFR 10.304(a).
- c. Sea service credit from approved training course or on a training simulator is not accepted to satisfy recency requirements. However, underway time at an approved course may be used for this purpose. An applicant who met the recency requirement prior to entering a school program shall not be penalized by attendance at an approved training course.
- d. Training received prior to obtaining a license may not be used for any subsequent raise in grade.
- e. Paragraph (d) of 46 CFR 10.304 limits the amount of credit granted for the completion of a course featuring simulator training. A maximum of 25 percent of the required service for any license transaction may be substituted for graduates of such courses.

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- f. 46 U.S.C. 7315(b) and (c) restricts substitution of school time to one-third of the required service for an able seaman (AB), and one-half for a qualified member of the engine department (QMED) rating. When reviewing license, certificate, or document applications, evaluators shall ensure that creditable service granted to qualified graduates of approved courses is not counted twice.

5. Repeating Approved Courses.

Approved courses may be repeated for credit under certain circumstances, such as completing shiphandling training or a diesel course at different license levels, unless expressly prohibited under the provisions of the approval.

E. Instructor Qualifications.

The training organization must include a list of the experience, knowledge and skills the course instructors are to possess to effectively teach the course. When recommending a person for approval as a qualified instructor, the training facility must establish that the person has the necessary instructional experience or instructional technique training acquired, maritime related knowledge and skills, and otherwise explain why the person is qualified. When reviewing an instructor's credentials several factors are considered:

1. Experience.

The individual should have a valid Coast Guard license, document, or certificate appropriate to the content of the course. If the person does not hold a valid license, evidence must be presented that demonstrates an equivalent level of maritime (industry/field) experience, knowledge, and skill. For example, an instructor for an unlimited radar observer course should have at least a license as master of near coastal steam or motor vessels of not more than 500 gross tons with an unlimited radar observer endorsement, or other equivalent watchkeeping experience appropriate to the course.

2. Skills.

An instructor must have a high level of understanding of the knowledge and skills taught in the course, in addition to having experience in their practical application. A license does not always serve as proof that the individual has experience with or a thorough understanding of all topics covered by the license examination. On the other hand, a person without a license may have the appropriate experience, knowledge, and skills necessary to teach a specific course. In either case, the following items presented in NVIC 6-97, "Policy on Qualified Instructors and Designated Examiners Who Train or Assess The Competence of Merchant Mariners" must be verified:

a. Instructor Credentials.

A background or experience in teaching or training in instructional techniques.

b. Subject Knowledge.

A high level of understanding of the particular subject area.

c. Instructor Skills.

The ability to use appropriate training techniques to accomplish the objectives of the training

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3. Teaching Ability.

A prospective instructor should have experience in teaching or training and/or knowledge of instructional techniques. An instructor must be able to communicate his/her experience, knowledge, and skills to the students. A highly knowledgeable person will not add to the course if he or she is unable to communicate that knowledge.

Training institutions should consult NMC Policy Letter 6-98 and NVIC 6-97 for further guidance on instructor qualifications.

F. Training Site Requirements.

The Coast Guard considers a suitable training facility an important component in providing quality training. 46 CFR, 10.303 requires: "**Each school with an approved course must: (a) Have a well maintained facility that accommodates the students in a safe and comfortable environment conducive to learning.**" The following guidelines are provided as a means to establish a suitable, shore-based, training room in which the student is provided an atmosphere conducive to learning. These guidelines are recommendations. However, where a training facility does not meet site acceptance guidelines, the training organization must present substantiating documentation supporting their contention that the site is suitable for the training offered.

1. General Considerations.

OCMIs should consider the following as the minimum standards for all approved course training facilities including local alternate (satellite) training facilities. To assist in the determination of suitability of all training facilities, obtain as a minimum, the following information before an approval is provided:

a. Site Plan.

A scaled site plan must be provided for each training facility location request. If classes are to be held in a local alternate training facility, the site plan when necessary, should be accompanied by marketing brochures or other reliable information, such as signed copies of contracts, to support the information set forth in the scaled site plan.

b. Class Size.

The maximum number of students permitted to occupy a classroom at a training facility, or alternative location, will be limited to the number permitted by the original course approval. Class size may be further limited by the physical size of the primary (original) or local alternate training facility (classroom) by the application of the following student/room size ratio:

An area of 72 ft² must be allowed for the instructor, and an area of 36ft² per student must be provided as a suitable minimum. To calculate the maximum number of students permitted in the training room, subtract 72 ft² from the total square footage of the room, and then divide the remainder by 36 ft².

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EXAMPLE: A request is made to conduct training in a local hotel conference room:

[1] site plan area equals:	900 ft ²
[2] deduct (instructor's area)	- 72 ft ²
[3] usable student area	<u>828 ft²</u>

Dividing the student area of 828ft² by 36ft²/student results in 23 students as the maximum number permitted.

c. Class Room Practical Work.

For courses requiring practical work, such as chart exercises, each student must have sufficient table space to use the chart without folding it or interfering with and overlapping another student's chart. An acceptable chart table should measure approximately six (6) feet long by 2.5 feet at a minimum (folding tables are acceptable). The distribution of tables and chairs should include aisle space. The widths of the aisles between rows of desks should be no less than 2.5 feet and perimeter aisles should be no less than 2.5 feet unless superseded by local codes.

G. Review of Course Curriculum Packages.

1. Site Review.

The OCMI in whose zone the training is to be conducted, by direction of the National Maritime Center (NMC), will conduct the initial review of the request for course approval. A visit will be made to the training site to evaluate and assess the facilities utilized in the conduct of a course by each school. The evaluation will include, but is not be restricted to:

- a. The suitability of the facility and classroom environment,
- b. The inspection and testing of simulators, simulation programs, equipment to be used in practical demonstrations, vessels to be used for training, or any other associated training equipment;
- c. *The NMC will determine whether simulators meet training and applicable performance requirements.*
- d. The review of visual aids;
- e. The interview of instructors;
- f. The discussion of course administration; and
- g. Other issues related to the approval of the course.

2. Course Element Review.

The National Maritime Center will evaluate courses submitted for approval as follows:

- a. Whether it can be reasonably be assumed that a student who successfully completes the course would, on the first attempt, pass a comparable exam prepared by the Coast Guard. *See 46 CFR 10.303(c)*
- b. Review of the approval request regarding the objective(s) of the course.
- c. Review and verification of the qualifications of the instructor(s).

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- d. Student proficiency objectives.
 - e. Suitability of the examinations and assessments.
 - f. Lecture and examination topics cover learning objectives and otherwise satisfy U.S. Coast Guard and/or International Maritime Organization (IMO) requirements.
 - g. Review of the description of the facility and training equipment (including simulators) and its relationship to the presentation of the course.
 - h. Comparison with other similar courses that have already been approved.
3. Unsatisfactory site reviews will be brought to the attention of the applicant and followed up by a letter stating the nature of the deficiency.
 4. Course submissions and recommendations that may impact Maritime Administration (MARAD) programs may be submitted to the Office of Maritime Labor and Training for review and comment.
- H. Conduct Of Schools with Approved Courses.
 Any training facility with a Coast Guard approved course must operate within the requirements of 46 CFR 10.303:
1. For at least one year after the end of each student's enrollment, the school must maintain the students' completed examinations on file, a report of practical tests administered, and a record of their classroom attendance; and
 2. Allow at any time, the OCMI or a designated representative, to:
 - a. Inspect the facilities, equipment, and records (e.g. attendance, test scores);
 - b. Conduct interviews and surveys of students to supplement the students' evaluation of the course;
 - c. Assign personnel to observe or participate in the course of instruction (with or without prior notification); and
 - d. Supervise or administer the required examinations or practical demonstrations.
 3. If a particular course site approval allows the course to be taught in various locations (e.g., conference rooms at national hotel chains) and it is to be offered to provide training to merchant mariners for the purpose of meeting licensing requirements, the course offeror must also provide to the designated representative:
 - a. Advance notice of at least 15 days must be submitted to the OCMI within the zone of responsibility where the training will be conducted. The designated representative may, at his or her option, visit the training facility to determine that the training is being conducted in a suitable manner and in accordance with the Coast Guard approval;
 - b. A class schedule indicating the course, date, location, and the instructor(s) of the training being offered;

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- c. The address and telephone number(s) of the central location where student records are kept and where the validity of an individual student and/or instructor's certificate may be verified; and
 - d. A list of students scheduled to attend the course. Where applicable, students repeating the course are to be indicated.
- I. Changes To Approved Courses.
- 1. Curriculum Change.
Any proposed change to an approved curriculum, including a change of simulators or training aids, must be submitted to the National Maritime Center for evaluation and written approval. A course may not be altered due to the failure of equipment necessary for the presentation or operation of the course. A training organization has the responsibility to suspend the conduct of the course if the required equipment is not operational.
 - 2. New Training Site.
Review for acceptance of a training facility, other than the one for which it was originally approved, is to be done by the OCMI in whose zone the new training facility is located. The OCMI should ensure that only the approved curriculum will be used and that the course will only be taught by qualified instructors. An on-site inspection must be made to ensure the site will be suitable to the needs of the course and the students. If the new facility is found acceptable, the OCMI will notify the National Maritime Center of its acceptance by providing a copy of the acceptance letter. Any special conditions for convening the course at the new site should be noted in the letter. If a training facility is relocating an approved course to a site which is in the area of responsibility other than that of the original OCMI, the process of acceptance is essentially the same. If the new site is acceptable, the OCMI will notify the school, the National Maritime Center, and, if necessary, identify any special requirements for conducting the course at the new site.
 - 3. Acceptance of New or Additional Instructor.
After the initial/original approval, but prior to the individual conducting the approved course, the acceptance of an additional or replacement instructor must be submitted by the applicant to the NMC for evaluation and written approval.
- J. Period of Approval.
Initial approvals are effective for a period of two years, unless sooner suspended, withdrawn or surrendered. Subsequent renewal periods may be granted for five-years, unless sooner suspended, withdrawn or surrendered.
- K. Retroactive Approval.
In some cases, schools submitting an original course approval have requested that the approval be backdated. Generally, an original approval is only granted back to the date of the letter requesting that the course be considered for approval and sea service credit.

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L. Approval Renewal Requests.

Requests for the renewal of an approved course should be submitted to the Commanding Officer, National Maritime Center (NMC-4B) at 4200 Wilson Blvd.; Suite 510; Arlington, VA 22203-1804 at least 90 days before the current approval expires. Courses that are submitted for renewal will be reviewed based on current guidelines and are to include a copy of the course outline and schedule. The letter requesting renewal should include:

1. Modifications that were made to the course;
2. What facility and/or equipment changes have occurred;
3. The number of times the course has been presented during the 12 month period immediately prior to the date of the renewal request.

NOTE: Courses that have received approval and have not been conducted during the period of approval are to be resubmitted as an initial approval request. The new approval will not exceed the initial two year period.

When a school with an existing approved course submits the letter requesting renewal, the OCMI should visit the school as directed by the National Maritime Center as part of the evaluation process and note their findings in the forwarding letter. When a course is submitted for renewal, the date of approval will generally run consecutively with the last date of expiration. If an approval expires during the approval process as a result of administrative handling, the renewal will be backdated to maintain continuity with the last expiration date. If, however, an approved course is not submitted for renewal on or before its expiration, the Course Curriculum Package will have to be re-submitted and processed as an original course approval.

M. Third Party Training Organizations.

Training organizations offering approved courses should have course approval in their own name. A training organization wishing to conduct training by the adoption of a previously approved course acquired from another training organization must submit their request to conduct the training to the NMC. The training organization is to submit the course curriculum package in the same manner as if the course were an original course approval request.

N. Approval of Foreign Training Courses.

The Coast Guard will not approve any course taught outside the territory of the United States, either by schools or institutions incorporated in a foreign country or by U.S. owned/operated schools or institutions. However, training courses offered in schools whose states are on the "white list" maintained by the IMO, will be accepted to satisfy STCW training requirements provided training does not lead to certification or licensing. A U.S. owned or operated training institution desiring to offer training outside the United States, must obtain the approval of that country's administration.

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O. Approved Course Oversight.

Effective oversight is considered essential to the approved course program. OCMI's are encouraged to establish a schedule of oversight visits to courses within their zone. The National Maritime Center may be consulted as to the frequency and detail of course audits. Regulations and policy guidance are in development establishing formal oversight procedures.

OCMI's are to ensure that course oversight can be conducted on each alternative site. For the oversight program to succeed in improving the overall quality of instruction, schools with approved courses must understand that the Coast Guard can inspect their course at any time. Until an OCMI has developed a comprehensive plan and schedule to account for the total number of courses and the available resources to conduct oversight of all courses, in addition to proposed local alternate training facility, OCMI's should not authorize the conduct of an approved course at an alternate site within their jurisdiction. In developing the inclusive plan, priority one courses are to be audited on at least an annual basis. Approved courses presented in lieu of Coast Guard examinations are to be audited within six months of the initial "interim" approval.

1. Administrative Actions.

The following administrative actions may be taken by the designated representative after consultation with the National Maritime Center;

a. Administrative Censure.

Administrative censures are warnings issued for lesser discrepancies, to include, but not be limited to a training organization as a result of incomplete student evaluation forms, student files occasionally missing information, the inability of the training organization to produce required administrative files within a reasonable period of time, continual reuse of written examinations, inappropriate advertising of courses, etc. Discrepancies of this type are to be discussed with the training organization, followed by a written report summarizing the noted problems and setting a reasonable time period in which to cure the deficiencies, not to exceed 30 days. Administrative censure may also be used for actions involving an instructor's teaching technique. Regardless of the extent of training, instructional techniques extend beyond methodology. Any consideration by an auditor must, therefore, include the opinions of the students attending the course. Where student interviews and/or critiques substantiate an auditor's appraisal of an instructor's ineffectiveness, the training organization and the instructor are to be provided the opportunity to modify the individual's instructional technique and to be re-evaluated the next course presentation. A training organization cited with three administrative censures within a three year period or three administrative censures in one visit, may have all affected courses suspended for not less than 30 days. Administrative censures recorded by each OCMI or designated representative will be entered into a database, established and maintained by NMC, to track discrepancies and actions taken.

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b. Suspension Of Approval.

The Commanding Officer, National Maritime Center or its designated representative have the authority to suspend approval for a course. Approvals may be suspended if the NMC, or its designated representative determine that the course does not comply with applicable portions of the Code of Federal Regulations, or has not maintained the requirements specified by the course approval, or if there are substantial deviations from the course curriculum package as submitted for approval, or if the course is being presented in a manner that is unsatisfactory, or that the course is not conducive to achieving the submitted learning objectives, or that a training organization has received multiple and/or frequent administrative censures. The NMC, or its designated representative, may suspend the course approval, require the surrender of the certificate of approval and/or direct the approval holder to cease claiming the course is Coast Guard approved. Upon suspension, the NMC is to verify that the approval holder has been notified how the course failed to meet applicable requirements and explain how deficiencies may be corrected. The NMC may suspend the approval for up to 60 days to cure the deficiencies cited. If the training organization considers the suspension to be unwarranted, they may appeal the decision to the respective Coast Guard District Commander. If the training organization elects, they may reapply for a new approval of the suspended course prior to the end of suspension, emphasizing their new operating standards, through the National Maritime Center. This request shall be treated as an original approval request.

c. Withdrawal Of Approval.

Withdrawal of an approved course can be applied, but not limited to the following: if found in violation of the regulations pertaining to the conduct of an approved course, or if the school ceases operation, or ceases to offer the course, or if there has been a determination that the approval holder has demonstrated a pattern or history of failing to comply with applicable regulations or the requirements of course approval, or substantially deviates from the approved course curricula, or presents the courses in a manner that is unsatisfactory or not conducive to achieving the specified learning objectives, or actions by instructors or training organization staff members contributing to the falsification of student documents or inappropriate issuance of a course completion certificate, or unauthorized modification of a course without having filed a request or provided appropriate notification, or prompting the students to give correct answers during an examination, or the coaching of students to correctly perform a demonstration during a performance-based assessment. A school will be notified by the NMC in writing by return receipt mail of the circumstances and pending action. At any time after the approval of a course has been withdrawn, the school may initiate another request for approval of the subject course(s). Any such request will be treated as an original course approval request.

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d. Supplemental Processes.

The Coast Guard recognizes that quality work produced by a training organization is worthy of being disseminated throughout the arena of maritime training. Therefore, it must be recognized that the quality of an approved course extends beyond the approval of a course package. Just as a manufacturer is required to guarantee a product to the consumer, the originator of an approved course has the responsibility to verify that their course can be effectively delivered at a satellite location. Verification by the course originator must be completed prior to the request for a satellite location of a previously approved course. A letter of verification from the approved training course originator must be forwarded when requesting approval of a satellite location. To emphasize the responsibility of the course originator, the suspension or withdrawal of an approved course at an accepted satellite location may result in an administrative censure for each occurrence to the originator's training organization. Training organizations offering a Coast Guard approved course should provide written affirmation to the mariner that the course approval is still valid at the time the course is offered to the student. The affirmation should also set forth the credit offered, based upon course completion. Courses which have had approval withdrawn must be resubmitted for evaluation to consider reinstatement of the affected course(s). The withdrawal of a course approval is indicative of a managerial system that is totally unacceptable. The new submission must include a detailed account of the training organization's adoption and implementation of a quality management system (QMS). In particular, the QMS must provide a strategic plan as part of this process which will address how the events which lead to the course approval being withdrawn will be prevented from recurring. Additional guidance is available through NVIC 7-97, *Guidance on STCW Quality Standards System (QSS) for Merchant Mariner Courses or Training Programs*.

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A. Records Management.

This section provides guidance on the maintenance of license, certificate of registry, STCW certificates and document files by Regional Examination Centers (RECs). Additional guidance can be found in COMDTINST M5212.12, Paperwork Management Manual.

1. Merchant Mariner's Document (MMD)/Sea Service Files.

Seamen documentation files are held at the REC for a period of one year from the date of the last transaction and then destroyed. All original applications shall be forwarded to Commanding Officer, National Maritime Center (NMC-4A) at the time the document is issued. When license and MMD transactions are completed at the same time, on the same application, the original application should be retained in the license file at the Regional Examination Center (REC) and a copy sent NMC-4A with a note that the original application is at the REC.

2. License And Certificate Records.

Files should be sent to the Federal Records Center (FRC) seven years after the last transaction, e.g., license renewal, upgrade, and should first be sanitized by removing examination answer sheets and other extraneous material. The following are examples of file contents that should be forwarded to the FRC:

- a. Applications and all supporting documents;
- b. Letters of service;
- c. Records of examinations; and
- d. Canceled license(s) and STCW certificates, if the mariner does not want them.
Return the canceled license(s) and STCW certificates to the mariner when possible.

3. Security Of Coast Guard Forms.

Each REC shall maintain a record of licenses and Certificates of Registry forms, Certificates of Discharge (Form CG-718A), and all other controlled forms. Each REC shall maintain a log indicating who received the forms at the REC, the individual who received the forms for use, the date distributed for use, and signature of the recipient. Before signing the receipt, the custodian shall carefully check the control numbers of the documents being delivered to determine that none are missing. The bulk supply on hand should be securely packaged, kept in a safe or locked cabinet at all times, and periodically reviewed. The available supply for day-to-day use shall be checked daily against the control record. If at any time blank license/Certificate of Registry forms, Certificates of Discharge, or other controlled forms are discovered missing a unit investigation shall begin immediately. A complete report of the circumstances shall be made promptly following the investigation to Commanding Officer, National Maritime Center (NMC-4A), via the district commander. A complete audit of all blank forms should be completed:

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- a. Semiannually;
 - b. When staff members with access to the forms change; and
 - c. At any other time the OCMI deems it necessary.
4. License Stubs.
These records are to be maintained at the REC for a period of seven years, then destroyed at the REC.
 5. Exam Room Logs.
These logs should be retained one year then destroyed at the REC.
 6. Transferring Seaman's Files Between RECs.
Files shall be forwarded by rapidraft letter requesting a receipt signature. The rapidraft should indicate who requested the file be transferred *and* how the request was made, e.g., phone, E-mail, letter. The file should be sent certified mail, return receipt requested. The originating REC will place the rapidraft and the signed return receipt in the now empty mariner's file folder. The contents of mariners' files may be transferred on a telephone request from the applicant or another REC.
 7. Freedom Of Information Act Requests (FOIA).
When determining what information is releasable from a mariner's file under the Freedom of Information Act (FOIA), use the FOIA Manual, COMDTINST M5260.2, the FOIA officer, and the district legal staff. Be conservative in your determination, as additional items may be released under appeal; however, the file's custodian may be held personally accountable for violations of the mariner's privacy. Note that FOIA denials can only be made by designated officials, normally the district commander.
 - a. Non-Releasable Information.
 - (1) The following information must be withheld under exemption (b)(3) in 5 U.S.C. 552 because it is required by other statutes to be protected:
 - (a) The fact that the mariner holds an MMD; and
 - (b) All information contained on the Merchant Mariner's Document, Merchant Mariner's Document application or in the MMD record (manual or electronic). forward all requests for information in MMD records to Commanding Officer, National Maritime Center (NMC-4A).
 - (2) The following information must be withheld under exemption (b)(6) in 5 U.S.C. 552 as a clearly unwarranted invasion of personal privacy:
 - (a) Information regarding the arrest and conviction record, including Section IV, Narcotics Record of the License/MMD application, Form CG-719B and answers to the questions in blocks 20 and 21 of the old license application, Form CG-866;
 - (b) Exam scores and employment records, including lists of discharges and letters of service as well as employment history listed on the application; and
 - (c) Present address and home phone number.

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- (1) Type and grade of license and certificate of registry, including endorsements.
- (2) Issue number.
- (3) Date and port of issue.

c. FOIA Requests.

Requests must be in writing, even if the only information desired is that which is on the face of the license.

8. Shipping Articles.

Shipping articles are submitted to Commanding Officer, National Maritime Center (NMC-4A) for review and filing. The shipping articles are maintained at Commanding Officer, National Maritime Center (NMC-4A) for three years then transferred to the FRC in Suitland, MD for an additional 60 years.

9. Official Logbooks.

The Official Logbooks are permanent records. They are submitted to the nearest OCMI for review by the Investigation Department, maintained at the Marine Safety Office for six months, then transferred to the nearest FRC for 60 years. After 60 years the Official Logbooks are sent to the National Archives Regional Center for permanent storage. A record of all official logbooks and their location must be maintained by the submitting office.

10. Preparation Of Fingerprint Records.

To comply with FBI policy and procedures governing criminal record checks, a classifiable form FD-258, Fingerprint Card, must be submitted for an original license, certificate of registry, Merchant Mariner's Document and 10% of renewable licenses/MMDs and new endorsements of licenses and MMDs. Only one set of fingerprint cards needs to be submitted when the applicant applies for a license and a Merchant Mariner's Document at the same time or within 6 months of a previous application. The REC should keep a second fingerprint card on file for one year to submit in case the first fingerprint card is rejected. Particular attention must be given to obtaining legible prints. The majority of rejections are due to one or more fingers not being rolled fully, the charts being smeared as the finger is being removed from the chart, or use of too much or too little ink. Any fingerprint that is smudged or otherwise illegible will be rejected. In addition, the FBI's system will reject any card containing any discrepancy which may include a blank entry or even a middle initial inserted in the place of a full middle name. The form FD-258 must have the proper ORI code number DCCG 00000, US COAST GUARD, WASH DC. A supply of form FD-258 with the proper code may be obtained by calling Commandant (NMC-4A). Fingerprint Cards, form FD-258, shall be submitted to Commanding Officer, National Maritime Center (NMC-4A) a minimum of once each week.

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To obtain the needed information for a criminal record check, compliance with the instructions on the back of form FD-258 is essential. Personnel must ensure that the following information is provided, either typed or legibly printed in blue or black ink.

- (1) Applicant's Name. (First, Middle, Last, Suffix)
- (2) Social Security Number.
- (3) Date of Birth.
- (4) Place of Birth.
- (5) Your No. OCA. This block must be completed with the alpha code for each REC and the applicant's social security number. The fingerprint card can NOT be processed without this code. The alpha codes are as follows:

A – Anchorage	T - Memphis
B – Baltimore	M - Miami
D – Boston	N - New Orleans
C – Charleston	Y - New York
G – Guam	P - Portland
I – Honolulu	F - San Francisco
H – Houston	S - San Juan
J – Juneau	W - Seattle
K – Ketchikan	L - St. Louis
E - Los Angeles/Long Beach	O - Toledo

EXAMPLE: For Memphis, OCA Block would read: T123456789

- (6) REC Location. The space entitled "Employer and Address" should contain the name and address of the Regional Examination Center where the application is submitted.
- (7) Reason For Fingerprinting. The reason for fingerprinting (original license, license as radio officer, certificate of registry as staff officer or MMD) must be typed or legibly printed in the space designated "Reason Fingerprinted."
- (8) Race. The space for "Race" will be completed with one of the following abbreviations only:

AI - American Indian	AN - Alaskan Native
A – Asian	PI - Pacific Islander
B – Black	H - Hispanic
W - White	

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If for any reason you doubt the information provided by the applicant, a letter stating the basis for doubt (including all pertinent details and justification) shall be referred to Commanding Officer, National Maritime Center (NMC-4A) for decision.

c. Radio Officers.

When an applicant has been approved for a license as radio officer and subsequently, within the five year renewal period, applies for an original MMD endorsed "See License as Radio Officer," a second set of fingerprints need not be obtained or submitted to the Commandant.

d. Questionnaire for National Security Positions SF-86 (formally Coast Guard Intelligence Agency Check Request, Form CG-2765).

Form SF-86, Questionnaire for National Security Positions, replaces the previous form CG-2765. The SF-86 must be executed for all non-U.S. citizens born outside the U. S., attached to the application and fingerprint forms, and forwarded to Commanding Officer, National Maritime Center. The NMC will forward the completed SF-86 to Immigration and Naturalization Service for processing and verification of an alien's legal entry into the U.S. Form SF-86 is available on Form Filler. Paper copies may be ordered from regular supply sources. The applicant must complete Parts 1-14 (page #s 1-5), and sign the bottom of page 9. In addition, page 10 (Authorization For Release Of Information), must also be completed and signed.

B. License Information System (LIS).

All license, COR, and MMD transactions are now recorded in a central computer system, the Merchant Mariner Licensing and Documentation System (MMLD). Therefore, LIS cards are no longer used.

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A. General.

1. Additional Licenses.

As a service to mariners, RECs should tell applicants if they are eligible, as far as service is concerned, for other licenses. Applicants must be evaluated for each license. The evaluation for the additional licenses must include determining proper tonnage limitations (if any).

Candidates Applying For:

Second mate

Should Consider Applying For:

Master 1600 gross tons

Master uninspected FIV

2. Radar Observer Endorsement.

a. Upgrade From Inland To Unlimited.

Anyone with Radar Observer (Inland Waters) may upgrade to Radar Observer (Unlimited) by successfully completing a Coast Guard Approved Radar Refresher (3 day) course. Service under the Radar Observer (Inland Waters) endorsement is not required. The upgrade can be made at any time after the Radar Observer (Inland Waters) endorsement is obtained.

b. Renewing Expired Endorsements.

Anyone with an expired radar observer endorsement, regardless of the period of expiration, may renew it at anytime by satisfactorily completing either a Coast Guard approved Radar Refresher (3 day) course or a Coast Guard approved Radar Recertification (1 day) course.

c. Required Endorsement.

There are two requirements in the regulations for radar observer endorsements. One is a training requirement to qualify for licenses, the other is a manning requirement. They do not conflict.

(1) 46 CFR 10.401(g)(2) requires applicants complete an approved radar observer course in order to qualify for certain deck licenses. Once obtained, those licenses may be renewed without a current radar observer endorsement. The intent of this requirement is to substitute training (qualification as radar observer) for additional sea service called for in the Convention on Standards, Training, Certification and Watchstanding (STCW).

(2) 46 CFR 15.815 requires licensed deck officers to hold a valid radar observer endorsement at the following times: when serving on inspected radar equipped vessels of 300 gross tons or over and when serving on a towing vessel as defined in 46 U.S.C. 8904.

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3. Able Seaman Requirements.

a. Qualification As Able Seaman.

46 CFR 10.401(g)(3) requires "qualification as an able seaman..." in order to qualify for certain deck licenses. Note that 46 CFR 10.401(g)(3) applies to ocean and near coastal licenses only. This means an applicant must have the necessary service and pass all the required examinations for the appropriate able seaman endorsement, including any written and practical examinations needed for lifeboatman if lifeboatman is required for that able seaman endorsement. (The license examination is not a substitute for the able seaman and lifeboatman examinations. See 16.C.12. of this volume.) Although applicants must meet all qualifications for the appropriate able seaman endorsement, they are not required to add the endorsement to their MMD. The intent of this requirement is to substitute training (qualification as able seaman) for additional sea service called for in the Convention on Standards, Training, Certification and Watchstanding (STCW).

b. Service As Able Seaman.

When regulations require "service as able seaman" (46 CFR 10.414(b)), mate oceans not more than 1600 gross tons), the applicant must hold an able seaman endorsement while performing the service.

4. MMD Endorsements Accompanying Licenses.

46 CFR 12.02-11(d)(1) addresses issuing MMD endorsements to licensed deck officers. Applicants who receive licenses that authorize service on vessels where MMDs are required (see 46 CFR 12.02-7), should be encouraged to obtain an MMD when the license is issued.

5. Rules Of The Road Examinations.

A rules of the road examination is only required if included as part of a professional examination, or if the applicant is increasing the scope of a license to waters covered by the international rules and has not previously passed the combined inland and international rules of the road module.

B. Creditable Service.

1. Simulator Training Credited as Sea Service.

Sea service credited for satisfactory completion of a Coast Guard approved shiphandling simulator course may be credited as service at the highest license grade held at the time the course was completed. In order for a Great Lakes mate/pilot to have the simulator training credited as chief mate service, the student must have at least one discharge as chief mate. The discharge must have been issued prior to the course convening date. Bridge simulator courses do not satisfy the recency requirements of 46 CFR 10.202(e) nor the six months of able seaman service required for third mate by 46 CFR 10.407(a)(1).

2. Repeating Coast Guard Approved Courses.

A shiphandling course may be repeated for credit at each license grade unless prohibited by the course approval.

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3. Panama Canal Service.
 - a. Towing Vessel Service.

Personnel at the Panama Canal Commission's Marine Bureau have indicated that their towing vessels operate on what could be considered near coastal routes between 15-40% of the time, mostly on the Pacific side. Applicants may be credited with a percentage of near coastal service based on an interview or on other submitted documentation. All other Panama Canal service should be credited as inland service.
 - b. Pilot Service.

Panama Canal pilot service can be credited on a day for day basis for inland licenses and on a three to one basis up to a maximum of 180 days toward the raise in grade of an ocean or near coastal license.
4. Service On Inland Waters Toward Upper Level Licenses.

Service aboard vessels operating on inland waters may be credited on a two for one basis toward unrestricted ocean licenses for a maximum of six months of the required twelve months service for license upgrade. This is consistent with both 46 CFR 10.211 which allows credit for other equivalent service, and with the requirements for lower level ocean and near coastal licenses which permit substituting inland service for up to half of the required ocean or near coastal service.
5. Service On MODUs.

Service aboard self-propelled, dynamically positioned MODUs which are not anchored or otherwise bottom bearing will be credited without restriction towards all grades of unlimited deck licenses in the same manner as conventional vessels. All other MODU service will be credited in accordance with 46 CFR 10.211(c).
6. Credit For Academy Graduates.

Academy graduates can qualify as third mate under 46 CFR 10.407(a)(2). Their academy service can therefore be considered as equivalent to the sea service requirement for third mate (three years service in the deck department, six months of which is as able seaman). When an academy graduate that meets 46 CFR 10.407(a)(2), applies for other deck licenses such as master 1600 or master of uninspected fishing industry vessels, their academy training may be credited as three years service in the deck department, six months of which is as able seaman. None of it shall be considered service as a licensed mate. OCMI's should be cautious in crediting academy training toward licenses of not more than 100 gross tons considering section 10.B.9.b. below.
7. Service On Military Sealift Command Vessels.

MSC's civil service personnel should present a sea service letter on MSC letterhead which will certify the sea service time. MSC will certify that time off for medical reasons, training, shore and annual leave will not be indicated as sea service.

 - a. For fleet support or High OPTEMPO ships, day for day service for underway periods. Stopovers of four days or less in U.S. ports or 14 days or less in foreign ports will be counted as sea service and credited at 100%.
 - b. Low OPTEMPO ships will be credited 60% of time served.

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8. Service Acquired Before July 1, 1989.

Service acquired on vessels over 1000 gross tons but not over 1600 gross tons will be credited as service over 1600 gross tons toward unlimited deck licenses if it was acquired before July 1, 1989. This is because prior to the rewrite of the regulations in 1987, service on vessels over 1000 gross tons qualified applicants for unlimited tonnage licenses. The service will be accepted regardless of when application is made.
9. Service For Deck Licenses Of Not More Than 100 Gross Tons.
 - a. Proof Of Ownership And Self-Certification.

Applicants who self-certify their sea time are required to present evidence of ownership of the vessel. Proof of ownership may be the vessel's document, state registration or any other form of documentation which satisfies the OCMI that the applicant did in fact own the vessel during the period of service. This practice is to comply with a DOT inspector general audit recommendation that more of the information provided by an applicant be verified.
 - b. Minimum And Maximum Vessel Size.

The regulations do not specify either minimum or maximum vessel size for experience to qualify for deck licenses of not more than 100 gross tons, and it is not reasonable to do so by policy. Each application must be evaluated on its merit. 46 CFR 10.201(a) states that each applicant must satisfy the OCMI that he or she possesses all the qualifications for the license. Experience gained entirely on large ships is not appropriate to qualify for a small tonnage license. Likewise, experience gained entirely on sail boards, kayaks, canoes, jet skis, etc., is also inappropriate. However, OCMI's may accept a limited amount of experience gained on such vessels if the applicant's overall experience demonstrates an ability to safely operate the type of small craft envisioned by the regulations.
 - c. Age.

46 CFR 10.201(f)(2) requires applicants to be at least 18 years old to qualify for a deck license of not more than 100 gross tons. There is no minimum age for obtaining creditable sea service. However, section 10.201(a) requires applicants to satisfy the OCMI that they possess all of the qualifications necessary before a license is issued. Therefore the age at which the majority of the service was obtained should be part of the OCMI's evaluation. Each application must be evaluated on its own merit.
 - d. Operation Of Military Small Craft.

An applicant who has operated small craft while serving in the Armed Forces shall be credited for such service upon documentary evidence that operation of small craft was the applicant's primary duty during the period stated.

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C. Raises Of Grade And Endorsements.

1. Firefighting Training.

46 CFR 10.207(f) requires applicants for a raise of grade who have not met the firefighting training requirement in section 10.205(g) to do so. This does not apply to all licenses, only those listed in 10.205(g). Any mariner who has completed approved "Firefighting (Ship)" training before December 1, 1989, does not need to attend further firefighting training.

2. Master Of 1600 Gross Tons To Third Mate.

46 CFR 10.407(c) provides for a master with a 1600 gross ton license to qualify for third mate any gross tons by showing one year as master of vessels over 200 gross tons. Section 10.402(b) states that an applicant qualifying for third mate under this section shall have a tonnage limitation placed on the license based on the applicant's qualifying experience.

3. Master 1600 GT Upon Oceans or Near Coastal Waters To Master Any GT Upon Inland Waters.

Mariners holding a license as Master 1600 GT Oceans or Near Coastal may apply for a Master Any GT Inland license utilizing 46 CFR 10.435. A tonnage limitation will be placed on the Inland license as per 46 CFR 10.402(b) and (c). Mariners may remove the tonnage limitation on the Inland license by serving one year on vessels over 1600 GT.

4. Master Of 100 GT Near Coastal To Master Of 100 GT Oceans.

The regulations do not refer separately to qualifications for master 100 gross tons oceans as they do for master 100 gross tons near coastal. Master 100 gross tons oceans is one of the tonnage increments that come under 46 CFR 10.424, the requirements for master 200 gross tons oceans. Therefore, to endorse master 100 gross tons near coastal for oceans, an applicant would have to show three years of total service, two years of which must have been as a master, mate or equivalent supervisory position while holding a license as master, mate or OUPV, or two years as licensed OUTV or second class OUTV in ocean or near coastal service. The firefighting, AB and radar observer requirements of 10.401(g) must also be met as well as additional examination requirements.

D. Tonnage Limitations.

1. Upper Level Licenses.

To qualify for an ocean or near coastal license for vessels of any gross tons, all the required service must be obtained on vessels of over 200 gross tons. Furthermore, at least one half of the required experience must be obtained on vessels of over 1600 gross tons (46 CFR 10.402(a)). If an applicant for an original or raise of grade of a license as master or mate does not have the required service on vessels over 1600 gross tons, a tonnage limitation is placed on the license based on the applicant's qualifying experience (10.402(b)). The provision made in 10.402(b) for a license issued with a tonnage limitation is for applicants lacking experience on vessels over 1600 tons, not those lacking experience on vessels over 200 tons. All of the service must have been on vessels over 200 gross tons.

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2. Sail/Auxiliary Sail Licenses.

a. Vessels Not More Than 100 GT.

For Sail/Auxiliary Sail endorsements on master/mate's licenses limited to 100 gross tons or less, consider the tonnage of all the vessels listed by the applicant, and use the procedures outlined in 10.422 to compute the tonnage limitation. Hence, the license will be endorsed for steam/motor/auxiliary sail vessels with one tonnage computation, regardless of which mode the various tonnages were acquired.

b. Vessels More Than 100 GT.

For master/mate's licenses over 100 gross tons, combine the steam and motor tonnages, compute the sail/auxiliary sail separately, and place two endorsements with their respective tonnage limits on the license.

3. When Qualifying Service Is On Vessels Of Five GT Or Less.

46 CFR 10.422(e) provides that master or mate licenses issued to applicants presenting qualifying service obtained aboard vessels of five gross tons or less will be limited to vessels of no more than 25 gross tons. This provision is independent of the other provisions of section 10.422. In other words, an individual who never serves on a vessel larger than five gross tons will not be allowed to raise their tonnage limit. In order to raise that tonnage limitation, a master or mate must present evidence of service obtained aboard vessels of greater than five gross tons as follows (see 46 CFR 10.422(b)(4)):

a. An additional six months service on vessels over five gross tons will allow the tonnage to be increased to 50 gross tons; and

b. Another six months service on vessels over five gross tons (a total of twelve months service on vessels over five gross tons) will allow the tonnage limit to be increased to 100 gross tons.

E. Service Aboard Tank Vessels.

To serve as a person in charge of a cargo transfer operation, a licensed deck officer must have a MMD endorsed as "Tankerman-PIC (LG)" or "(DL)" appropriate to the cargo. The requirements for Tankerman are listed in 46 CFR Part 13.

F. River Licenses.

The 46 CFR Part 10 final rule on licensing of maritime personnel created several river licenses. This section supplements the basic structure which the regulations contain on these licenses.

1. Routes.

River licenses can be issued with three route designations; Western Rivers, Rivers other than Western Rivers, and Rivers.

2. License Examinations.

There are three different examinations for rivers licenses; 1) Master's license authorizing service on vessels of more than 200 gross tons, including 500, 1600, and any gross tons; 2) Mate's license authorizing service on vessels of more than 200 gross tons, and; 3) Master or Mate on vessels of not more than 200 gross tons. Tonnage should be determined using the qualifying service.

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- a. All three examinations will utilize the 30 question Rules of the Road module. Because Alaskan and other rivers are governed by the COLREGS, applicants for a Rivers route or a Rivers other than a Western Rivers route who are examined with the Inland Rules of the Road module will have the standard COLREGS exclusion placed on their license.
 - b. Master and Mate examinations will each have a General module appropriate for the level. All other modules utilized will be existing or new generic modules.
 - c. Routes will be determined by which generic navigation modules are taken. Applicants for a Western Rivers route will take the OUTV Western Rivers navigation problems module. Applicants for a Rivers other than Western Rivers route will take the navigation problems module based on the Columbia River which is similar in scope to the Western Rivers module. Applicants for a Rivers route will be required to take both navigation modules.
- G. Boy Scout Sea Explorer Program.
The U.S. Coast Guard/Boy Scouts of America Inspection and Certification Agreement has been canceled. See Chapter 1, Section P.11 of this Manual.
- H. Licenses For Mobile Offshore Drilling Units (MODUs).
Holders of licenses as master, oceans, any gross tons do not have to take any additional examinations when obtaining an endorsement as offshore installation manager (OIM). Holders of such master licenses must however, meet the sea service requirements for the OIM endorsement and complete the required Coast Guard approved training courses.
- I. Liftboat Licenses.
These vessels are to be treated as if licensing individuals for Offshore Supply Vessels. The parameters for manning these type of vessels can be found in Chapter 21, Section L of this volume.
- J. T-AGOS Class Vessels.
This policy only applies to the STALWART class T-AGOS vessels, T-AGOS 1 through T-AGOS 18. They were originally admeasured as less than 1600 gross tons and later readmeasured as over 1600 gross tons. This tonnage increase prevented masters and mates limited to 1600 gross ton vessels from continuing to serve on them. The following policy is intended to allow masters and mates who have served on the STALWART class T-AGOS vessels to continue serving on them.
1. Licenses With T-AGOS Endorsements.
Licenses as master or chief mate of STALWART class T-AGOS vessels remain in effect and may be renewed. They may not be used to bypass any grade in the normal licensing progression.

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Masters and mates with 1600 ton licenses qualify for endorsements limited to STALWART class T-AGOS vessels that allow them to serve in positions they held before readmeasurement. For example, a master 1600 that served as chief mate would qualify for an endorsement as chief mate of any gross tons limited to STALWART class T-AGOS vessels. These endorsements will not be given to any other applicants. Newly hired deck officers must have an appropriate upper level license.

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Pilotage in the United States has remained relatively unchanged since the days of colonization. What has evolved is a dual system of pilotage. There is a federal pilotage system, and a state pilotage system.

1. Federal Pilotage System (Not Great Lakes).

As noted in 46 U.S.C. 8502, federal pilotage applies to a coastwise seagoing vessel. A coastwise seagoing vessel, generally means one which is carrying or authorized by its documentation to engage in trade between one U.S. port and another. A vessel meeting this description must be under the direction and control of a Federally licensed pilot when the vessel is:

- a. Not sailing on register;
- b. Underway;
- c. Not on the high seas; and
- d. Propelled by machinery and subject to inspection under 46 U.S.C. Subtitle II, Part B or Chapter 37. (Subtitle II, Part B refers to the Inspection and Regulation of Vessels.)

There are a few variations regarding the Federal pilotage requirement for a coastwise seagoing vessel. First, in the area of Prince William Sound, Alaska, a coastwise seagoing vessel may qualify for certain exemptions, under certain circumstances. Refer to 46 CFR 15.812(f) for the criteria. Second, unless the Secretary determines that a hazard to navigational safety exists, a coastwise seagoing dredge is exempt from the Federal pilotage requirement. (Refer to 46 U.S.C. 8502(i)).

2. State Pilotage System.

As indicated in 46 U.S.C. 8501 and 46 U.S.C. Chapter 93, State pilotage applies to foreign trade vessels not on the Great Lakes. Foreign trade vessel means U.S. vessels sailing on registry, and foreign vessels. The requirement for a foreign trade vessel to take a State pilot varies among the States. As provided in 46 U.S.C. 8503, where there is no regulation of pilotage by the State, the Secretary may promulgate regulations which require a federally licensed pilot to be aboard a foreign trade vessel when engaged in foreign commerce and operating on the navigable waters of the United States. If the State should subsequently establish a requirement for a State pilot and notify the Secretary of that fact, the Federal pilotage requirement for foreign trade vessels would be rescinded. (Regulations promulgated under this part will be found in 46 CFR 15.1001.)

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3. Great Lakes Pilotage.

46 U.S.C. Chapter 93, the Memorandum of Arrangements (MOA) between the United States and Canada, and the Great Lakes Pilotage Regulations (46 CFR Parts 401-404) contain the provisions for the conditions of pilotage service on the Great Lakes for foreign trade vessels.

a. Great Lakes Pilotage Oversight.

The Coast Guard, has the responsibility to oversee and approve the pilot pools of the U.S. registered pilots which provide pilotage services on the Great Lakes. The Director of Great Lakes Pilotage determines the number of U.S. pilots needed in order to provide adequate and efficient pilotage service as described in the MOA.

b. Great Lakes Geographic Area Of Applicability.

The geographic area of applicability for pilotage on the Great Lakes includes all of the Great Lakes, their connecting and tributary waters, the St. Lawrence River as far East as St. Regis, New York, and adjacent port areas.

c. U.S. Registered Pilot.

A U.S. Registered Pilot is an individual who holds a valid first class pilot's license for the routes specified, and who also has been issued a Certificate of Registration by the Director, Great Lakes Pilotage.

d. Requirement To Take A Pilot.

A foreign trade vessel must engage a United States or Canadian Registered Pilot for the route being navigated whenever it is operating within the areas of the Great Lakes described above. This applies to all foreign trade vessels, meaning U.S. vessels sailing on registry and foreign vessels.

e. Salty Laker Trade.

For more information on this topic see 11.I of this volume.

B. Pilot Licensing.

Any individual who applies for a first class pilot's license need not hold any other license. However, the individual must satisfy certain service and round trip requirements. (Refer to 46 CFR 10.701 and 10.711)

1. Service Requirements.

An individual seeking a first class pilot's license or endorsement must meet a service requirement which is based upon a combination of the time spent in the deck department, and on vessels operating over the class of waters for which pilotage is desired.

2. Officer in Charge of Marine Inspection (OCMI) Imposed Service Requirements.

The OCMI responsible for issuing a first class pilot's license or endorsement may use his/her discretion to impose certain limitations based on the applicant's experience on a particular type and tonnage of vessel operating over a specific route for which pilotage is desired. If the route is in another OCMI zone the issuing OCMI shall obtain the concurrence of that OCMI.

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An applicant may substitute a portion of the standard service requirements described in 11.B.1 if he/she has nine months of shipboard experience and has completed a pilot training program approved by the Commandant. A list of approved pilot training programs is maintained by NMC.

4. Round Trip Route Familiarization Requirement And Documentation For Pilotage.

The OCMI will consider the experience and current license held by an applicant when determining the round trip requirement for an original or endorsement to an existing pilot's license. In this regard, an applicant may apply the round trips made while participating in an approved pilot training program to satisfy the route familiarization requirement. Documentation concerning these round trips must include the date, route, time of day, and name and tonnage of the vessel on which the trips were made properly certified by the master or pilot. Masters may document their own round trips for pilotage by submitting discharges and/or other acceptable proof of trips. "Observer" experience is acceptable towards satisfying the round trip requirements for route familiarization.

5. Tonnage Limitations.

To obtain a first class pilot's license or endorsement of any gross tons, the applicant must have sufficient experience on vessels of more than 1,600 gross tons (GT) while making the required number of round trips as specified by the Officer In Charge of Marine Inspection (OCMI). An applicant is considered to have sufficient experience with 18 months service in the specific capacity described in 11.B.1, and with at least two-thirds of the required round trips having been made on vessels over 1,600 GT. Otherwise, an applicant with experience on vessels of lesser tonnage may only be issued a first class pilot's license or endorsement of limited tonnage until the applicant has completed the number of round trips on vessels of over 1,600 GT as determined by the OCMI. See 46 CFR 10.711

An applicant may use the combined gross tonnage of a tug and barge(s) to obtain a first class pilot's license or endorsement of any gross tons. However, the OCMI may require that all or a portion of the applicant's experience be on self-propelled vessels of 1,600 GT or more in order to obtain a first class pilot's license or endorsement which is not restricted to tug and barge combinations.

6. Examination.

The examination subjects for an original pilot's license, and for an individual who is already licensed as master, mate or first class pilot of vessels greater than 1,600 GT are contained in 46 CFR 10.910. Information concerning development of the local knowledge portion of the exam may be found in chapter 5 of this manual.

- a. For an original first class pilot's license, the applicant must take the full examination.
- b. For an endorsement to an existing master, mate or first class pilot's license of more than 1,600 GT, the applicant need only take a partial examination covering the specific route, e.g., chart sketch and local knowledge.

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C. Pilotage Routes For First Class Pilots And "Acting As" Pilots.

The regulations classify pilotage routes into two types, dependent upon the type of pilotage license that was issued. OCMI's will make available to interested persons, a description of the pilotage route/route segments within their respective zones. Mariners who will be completing routes, route segments and round trips to qualify as pilots (both "acting as" and applicants for a first class pilot's license) should verify in advance with the appropriate OCMI, what constitutes a qualifying trip.

1. Federal First Class Pilots.

Federal First Class Pilot's licenses are issued with endorsements which describe the geographic limits of the waters upon which the holder is authorized to serve, in accordance with 46 CFR 15.812(b)(1).

First class pilot's licenses and endorsements may be issued with inclusive route descriptions to applicants who have not made familiarization trips on every section of every waterway included within the described route. Applicants are not always required to obtain familiarization trips on each tributary along the route being applied for, nor are they always required to present evidence of having docked at each facility within the route. In addition, in many zones, applicants are not required to obtain round trips into the minor ports included in the route.

2. "Acting As" Pilots.

These individuals must complete a specified number of round trips over the route to be traversed in accordance with 46 CFR 15.812(b)(2). These individuals self-certify their qualifications for a route. They are not issued a pilot's license or endorsement that describes the specific waters upon which they are authorized to serve as pilot. For "acting as" pilots, the requirements concerning routes should parallel the route requirements for licensed first class pilots. A description of the route requirements for a licensed first class pilot and an "acting as" pilot may be obtained from the OCMI concerned. It is incumbent upon the mariner who will "act as" a pilot to determine in advance whether he/she meets the local pilotage requirements.

To qualify as an "acting as" tank barge pilot the operator should have a barge in tow for at least 2/3 of the required round trips. An OCMI may, however, further reduce or eliminate the number of round trips required with the barge in tow if he/she determines that it is appropriate for any routes or segments within the zone.

3. Docking Pilots/Masters.

In some ports, particularly on the East and Gulf Coasts, individuals frequently referred to as docking pilots or docking masters direct the docking and undocking of vessels. In most cases, these individuals are employees of tug boat companies.

Coast Guard licensing regulations do not address docking pilots or docking masters and, generally, the states also do not issue these licenses. Therefore, "docking pilot" and "docking master" are unofficial employer trade designations, rather than types of licenses.

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Inspected, coastwise seagoing vessels, not sailing on register, when underway and not on the high seas, must be under the direction and control of a Federal pilot (46 U.S.C. 8502)(46 CFR 15.812). With respect to these vessels, the regulations are clear. If a vessel meets the above description, it must be operated under the direction and control of a federally licensed pilot at all times when it is underway in U.S. navigable waters. Any individual directing the navigation of such a vessel must have the appropriate first class pilot's license issued by the Coast Guard for the particular route in question.

4. Mooring Masters.

The regulations concerning mooring masters are found in 33 CFR 150.211.

D. License Equivalency.

The regulations recognize the ability of an individual holding a license as a pilot or a license as master, mate, or operator to serve in a related capacity within any restrictions on that license. The restrictions referred to in this case are usually associated with the tonnage and specific waters or route(s) indicated on the license.

1. Authority To Serve As Pilot.

An individual who holds a license endorsed only as master, mate, or operator may serve as a pilot under the authority of that license aboard certain types of vessels when they are underway and not sailing on register. To do so, the individual is required to make a specific number of round trips over the route to be traversed, and may have to serve aboard the type of vessel to be piloted. In 46 CFR 15.812(b)(2) the phrase "employed aboard a vessel" is interpreted to mean that the individual is a licensed member of the vessel's crew, or an appropriately licensed permanent employee of the vessel owner or operator, serving aboard the vessel.

a. Pilot Of Vessels Not More Than 1,600 GT.

An individual who holds a license as master or mate may serve as pilot of a self-propelled coastwise seagoing vessel or a vessel operating on the Great Lakes of not more than 1,600 GT subject to inspection under 46 U.S.C. Chapter 33 after making four round trips over the route to be traversed while in the wheelhouse as an observer or watchstander. If the route is to be traversed during darkness, at least one of the trips must be made during this time.

b. Pilot Of Tank Barges Not More Than 10,000 GT.

An individual holding a license as master, mate or operator may serve as pilot of a coastwise seagoing tank barge or tank barge operating on the Great Lakes of not more than 10,000 GT subject to inspection under 46 U.S.C. Chapter 37 after making twelve round trips over the route to be traversed while in the wheelhouse as an observer or watchstander. If the route is to be traversed during darkness, at least three of the trips must be made during this time. In addition, the individual must have at least six months service in the deck department on towing vessels engaged in towing.

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c. Self Certification To Serve As Pilot.

An individual may self-certify that he/she qualifies to serve as a pilot aboard vessels described in paragraphs a or b above. If requested to do so, the individual shall provide the Coast Guard with adequate documentation concerning his/her qualifications.

2. Authority Of Pilot To Serve As.

An individual who holds a license as pilot of inspected, self-propelled vessels over 200 GT is authorized to serve as master of inspected vessels less than 100 GT, operator of uninspected passenger vessels (OUPV), and operator of uninspected towing vessels (OUTV) within any restrictions on that license. The restrictions referred to in this case apply to the specific waters or route(s) indicated on the license. (Refer to Chapter 13 of this volume regarding the authority of a pilot to serve as OUPV or OUTV).

E. Pilotage Requirements For Various Vessels.

1. Pilotage For Dual or Multi-Documented Vessels.

Pursuant to 46 U.S.C. 12103 a vessel eligible for documentation may have its certificate of documentation (COD) endorsed with one or multiple endorsements. Where a vessel possesses more than one endorsement on its COD, the actual use of the vessel determines the endorsement under which the vessel must sail. See 46 CFR 67.17-1(c). Vessels carrying two or more such endorsements are generally referred to as dual- or multi-documented vessels. For each voyage leg upon which such a vessel is engaged, it may sail under only one of its endorsements. It cannot claim to be sailing under more than one endorsement at any given time. Where a vessel is sailing under its coastwise endorsement, it is subject to Federal Pilotage requirements. Where the vessel sails under its registry endorsement, it is generally subject to state pilotage laws.

To determine if a vessel is operating under a registry endorsement, the following guidelines should be applied:

- a. carrying any domestic cargo for delivery to a foreign port;
- b. carrying any foreign cargo for delivery to a U.S. port or place embraced within the coastwise laws;
- c. carrying and foreign cargo for delivery to a foreign port (even though there may be intermediate stops in U.S. ports); or
- d. sailing in ballast from a U.S. port to a foreign port or from a foreign port to a U.S. port.

The trigger for pilotage is not whether the vessel is in coastwise trade or foreign trade, rather it is whether the vessel is sailing on a registry or a coastwise endorsement. This is significant because the emphasis is on insuring no gaps in pilotage jurisdiction even though a vessel is not, per se, engaged in trade.

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2. Pilotage For Vessels in Ballast.

For pilotage purposes, whether the vessel is carrying cargo or passengers, or whether it is in ballast at any given moment is immaterial; all of the requirements of 46 U.S.C. 8502 still apply. 46 U.S.C. 12105 states that a vessel for which a registry endorsement is issued may be employed in foreign trade. 46 U.S.C. 12106 states that a vessel with a coastwise endorsement may be employed in coastwise trade. For pilotage purposes a vessel remains a U.S. documented vessel required to be sailing on one endorsement or the other regardless of whether the vessel is carrying cargo or passengers, or is in ballast.

3. Pilotage For "T" Boats.

Pursuant to 46 U.S.C. 8502, U.S. vessels which are inspected "coastwise seagoing vessels" may be subject to pilotage requirements.

While an individual can obtain a license to operate a "T" Boat at age 18, the 1978 Port and Tanker Safety Act established the minimum age requirement for a Federal first class pilot's license (including an "acting as" pilot) at 21 years (46 U.S.C. 7101(e)(1)).

Existing pilotage law and regulations do not permit an exemption from pilotage requirements for small gross tonnage. The "acting as" pilot established by the 1985 pilotage regulation permits coastwise seagoing vessels of not more than 1600 gross tons to satisfy their pilotage requirement by the master or mate who has, among other things, made four round trips over the route to be traversed.

4. Pilotage For Public Vessels.

Public vessels are exempt from Federal pilotage requirements, except for some Department of Transportation (DOT) vessels (see 46 U.S.C. 2109). The pilotage requirements for DOT vessels are as follows:

- a. Coast Guard and St. Lawrence Seaway Development Corporation vessels are exempt from pilotage requirements; but
- b. all other DOT vessels (such as Ready Reserve Fleet and other Maritime Administration vessels) are not exempt from pilotage requirements.

For assistance in determining the status of a vessel, it is recommended that the local Coast Guard Captain of the Port be contacted.

5. Pilotage For Dredges.

Dredges are normally exempt from Federal pilotage requirements. This exemption was granted by Public Law 101-595 of November 16, 1990 (The Federal Maritime Commission Authorization Act of 1990, title III, section 307, 46 U.S.C. 8502(i)(1) and (2)).

However, the exemption also provides that, if the Secretary determines, after notice and comment, that the exemption creates a hazard to navigational safety in a specified area, the Secretary may require that a dredge otherwise exempted by paragraph (1) take a pilot.

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CHAPTER 11: LICENSING OF PILOTS**F. Pilot License Renewal.**

At the time of renewal, an individual has two options to assure the continued validity of their first class pilot's license or endorsement. First, the individual must have made at least one round trip over the route(s) within the previous 5 years, or second, at the OCMI's discretion, the individual may be allowed to satisfy the route refamiliarization requirement by reviewing appropriate materials. In this case, the applicant may review the materials and certify to the OCMI what materials were reviewed and on what dates up to 90 days preceding renewal. If the individual does not satisfy either of the above options at the time of renewal, that portion of the pilotage license or endorsement remains invalid until one refamiliarization round trip has been made over the route. (Refer to 46 CFR 10.713)

G. Annual Physical Requirement For Pilots.

An individual who holds a first class pilot's license or endorsement or "acts as" a pilot of a vessel of 1,600 GT or more must have an annual physical examination. (Refer to 46 CFR 10.205(d)).

In accordance with 46 CFR 15.812(d), documentation proving compliance with applicable portions of the regulations, including the results of the operator's current physical examination, must be produced within a reasonable period of time, if required by the Coast Guard.

See chapter 4 of this manual for information concerning the physical requirements for an original pilot's license or endorsement to an existing license.

H. Radar Observer Requirements For Pilots.

An individual who is serving as a pilot in accordance with Federal law on an inspected vessel of 300 GT or more, and which is equipped with radar, must hold a valid radar observer endorsement. (Refer to 46 CFR 15.815(b))

I. "Salty Laker" Trade.

Canadian vessels that operate regularly on the Great Lakes during the Great Lakes navigation season but which operate outside of the Great Lakes during the non-navigation season are considered to be in this type of trade. These types of vessels would be required to engage a Great Lakes registered pilot in the designated waters of the Great Lakes on their first voyage into the Great Lakes until all foreign cargo on board is discharged or if the vessel is coming directly from a foreign port inside the system if the vessel is coming directly from a foreign port outside the system.

In addition, these Canadian vessels would be required to engage a registered pilot in the designated waters of the Great Lakes on their exit voyage from the first port where cargo is loaded, or from the last port of call within the system if the vessel is proceeding without cargo directly to a foreign port outside the system. Except as indicated above, these Canadian vessels would not be required to engage a registered pilot provided they meet all other applicable U.S. and Canadian requirements. For the purposes of the above statements, "foreign cargo" on the exit voyage means cargo destined for a port outside Canada and outside the Great Lakes, and on the entrance voyage means cargo loaded at a port outside Canada and outside the Great Lakes. A "foreign port" means a port outside Canada and outside the Great Lakes. For more information on Great Lakes pilotage, see Chapter 93 of Title 46, United States Code.

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A. Additional Endorsements.

As a service to mariners, RECs should advise applicants when they may be eligible, as far as service is concerned, for other endorsements. Applicants must of course be evaluated for each endorsement. The evaluation for the additional endorsements must include determining proper horsepower limitations (if any). Refer to Figure 12-1 to see if additional examinations are required.

<u>Candidates Applying For:</u>	<u>Should Consider Applying For:</u>
First assistant engineer	Chief engineer (Limited-Oceans)
	Chief engineer uninspected FIV
	Designated duty engineer - Unl.
Second assistant engineer	Chief engineer (Limited-Oceans)
	Chief engineer (Limited-N/C)
	Chief engineer uninspected FIV
	Designated duty engineer - Unl.
Third assistant engineer*	Designated duty engineer - Unl.
	Designated duty engineer - Ltd.
Chief engineer (Limited-O)*	Chief engineer uninspected FIV
Chief engineer (Limited-NC)	Chief engineer uninspected FIV
	Designated duty engineer - Unl.
Assistant engineer (Limited)	Designated duty engineer - Unl.

*NOTE: There is no need for a chief engineer (Limited-Oceans) to have a DDE endorsement since that chief engineer license covers every case where a DDE could be employed.

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B. MMD Endorsements Accompanying Licenses.

Engineers holding licenses that authorize service on inspected vessels of more than 2000 horsepower are entitled by 46 CFR 12.02-11(d)(2) to an MMD endorsed for any unlicensed rating in the engine department. Such license holders should be encouraged to obtain an MMD when the license is issued. In many cases an MMD is required to legally serve aboard a vessel. (See 46 CFR 12.02-7).

C. Creditable Service.

1. Minimum Vessel Size.

All service must be on vessels of at least 100 gross tons. This is consistent with the requirements for ratings as a qualified member of the engine department. See section 12.C.8 for exceptions for designated duty engineers.

2. Watchstanding Requirements.

Traditionally, the Coast Guard has held watchstanding experience to be an important part of the professional development of third and second assistant engineers. Technological and design advances over the last several years have led to the development of ships that can operate with unattended engine rooms. The certificates of inspection for such vessels still require licensed engineers to be on board (the engineer being on call as needed). Since the engineers are on call, such service shall be treated as though the license holder were in charge of a watch and will be creditable for a raise in grade

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FIGURE 12-1: MULTIPLE ENGINEERING LICENSE EXAMINATIONS

Individuals applying for multiple engineering licenses need only be examined by one examination series. The examinations in the left-hand column adequately test for any additional endorsements that is marked on the corresponding horizontal line. The additional endorsements shall be of the same propulsion mode(s) for which the applicant is examined. Any horsepower limitations associated with the application will also apply to the additional engineering licenses. Refer to Figure 19-1 for engineering license equivalencies

ADDITIONAL ENDORSEMENTS PERMITTED							
EXAM SERIES	CHIEF- LTD OCEANS	CHIEF LTD N/C	ASST. ENG. LTD	CHIEF UFIV	ASST. ENG. UFIV	DDE UNLTD	DDE LTD
CHIEF ENGINEER — UNLTD							
FIRST ASST. ENGINEER	•			•		•	
SECOND ASST. ENGINEER	•			•		•	
THIRD ASST. ENGINEER						1	•
CHIEF LTD — OCEANS				•		•	
CHIEF LTD — NEAR COASTAL				•		•	
ASST. ENGINEER LTD					•	•	
CHIEF ENGINEER UFIV			•				•
ASST. ENGINEER UFIV							•
DDE UNLIMITED¹			•		•		
DDE LTD							

1. Graduates of a maritime academy with a third assistant engineer license and endorsed with DDE Limited, may apply for DDE Unlimited after obtaining six months sea service as a DDE Limited and a letter of recommendation from the company with whom they served, and be granted the endorsement without further testing.

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3. Service Under License In Lieu Of Service Under QMED Rating.
46 CFR 12.02-11(d)(2) implies that either a license for inspected vessels of more than 2000 horsepower (1500 kW) or an MMD endorsed for "Any Unlicensed Rating" in the engine department authorizes the holder to serve in any unlicensed capacity in the engine department. Unlicensed service obtained under such a license is acceptable even if the mariner did not hold the accompanying MMD endorsement. However, the service must have been legal, e.g., an MMD was not required under 46 CFR 12.02-7 or the mariner held an MMD with entry ratings.
4. Illegal Service.
Unlicensed service as assistant engineer or chief engineer on ocean or near coastal vessels of 200 gross tons or more is illegal and is not creditable service. The only exceptions to this are public vessels, wooden vessels of primitive build and barges.
5. Service On Uninspected Vessels.
When upgrading unlimited licenses, third, second and first assistant engineers frequently present time served as engineer on uninspected vessels that are not required to have licensed engineers and do not have engineering watchstanders. Service on these vessels may be credited as third or second assistant engineer service (depending on the license held) if the applicant was a full-time engineer and was responsible for the engineering plant. It may not be credited as first assistant engineer service since vessels that do not require licensed engineers usually do not have auxiliary, cargo and electrical systems comparable to vessels with licensed engineers. Only service as an actual first assistant engineer can satisfy the first assistant engineer requirements for advancement to unlimited chief engineer.
6. Service As Chief Or Assistant Engineer (Limited) Or DDE.
Service as chief engineer (limited), assistant engineer (limited) or DDE, may be credited as third or second assistant engineer service (depending on the license held). Only service as an actual first assistant engineer can satisfy the first assistant engineer requirements for advancement to unlimited chief engineer.
7. Qualifying Service For Chief Or Assistant Engineer (Limited).
The phrase "equivalent supervisory position" concerning qualifications for licenses as chief and assistant engineer (limited), refers to service in a position as an engineer rating on vessels where engineering licenses and QMED ratings are not required (e.g., tugs, fishing vessels, etc.).
8. Qualifying Service For Designated Duty Engineer (DDE).
The above interpretation of "equivalent supervisory position" also applies to DDE. To be creditable toward DDE, the service must have been as a full time engineer in an operating engine room. OCMI's may accept service on vessels less than 100 gross tons provided the vessel has a "walk in" engine room with an engineering plant comparable to vessels over 100 gross tons (e.g., electrical generators and other auxiliaries independent of the main engines).

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9. Credit For Academy Graduates: Limited Chief Engineer.
 When academy graduates, who are qualified as third assistant engineer under 46 CFR 10.516(a)(3), apply for licenses as chief engineer (limited - oceans), chief engineer (limited - near coastal), or chief engineer of uninspected fishing industry vessels (UFIVs), they may be allowed three years sea service credit for their academy training, when they have acquired one year of sea service as a licensed engineer. Two years of the credit may be considered, for evaluation purposes only, as QMED service. None of it shall be considered service as a licensed engineer.
10. Academy Graduates: Designated Duty Engineer-NMT 4000 Horsepower.
 When an academy graduate can demonstrate that industry specific training has been provided prior to graduation, an endorsement for designated duty engineer (DDE) - Limited-4000 hp (3000 kW), may be applied for and added to a third assistant engineer license without further testing. Where the training program is unable to demonstrate that industry specific training has been provided prior to graduation, the applicant may reapply for the endorsement after completing the following:
- a. 60-days of sea service in any capacity in the engine room; or,
 - b. an approved program of industry specific training following graduation.
11. Credit For Academy Graduates: Designated Duty Engineer-Unlimited.
 Since persons serving under a DDE Unlimited license may be the sole engineer on board these vessels and do not have a more experienced engineer to turn to, hands-on experience as a DDE-Limited Engineer is an important supplement to their onshore training. When applying for an endorsement as designated duty engineer (DDE) -Unlimited HP (more than 4000 hp/ 3000 kW), they may be allowed, for the purpose of evaluation only, to present a written recommendation on company letterhead after six months sea service in a licensed capacity and be granted this endorsement without further examination.
12. Maritime Administration Vessels In Reduced Operating Status (ROS).
 The Maritime Administration maintains some of their vessels in ROS with a limited crew, usually by contract with a commercial shipping company. Service on ROS vessels will be credited as normal sea service when they are underway and fully manned. During all other times service should be credited as follows:
- a. For Original Third Assistant Engineer.
 One day credit for every three days worked up to a maximum of three months credit. None of the credit shall be considered QMED service.
 - b. Raise Of Grade.
 Service as a licensed engineer will be evaluated under 46 CFR 10.211(b)
 - c. License Renewal.
 One day credit for every three days worked toward meeting the sea service requirement for renewal.
 - d. License Endorsements.
 No credit will be given toward horsepower increases or qualification in another propulsion mode.

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13. Service On T-AKR Fast Sealift Ships.

The T-AKR fast Sealift ships (former Sealand SL-7s) are maintained in reduced operating status with a partial crew. The crew receives experience that is similar, to a degree, to the experience received on an underway vessel. However, the engineers do not normally stand "steaming" watches while in reduced status. Therefore, first assistant engineers may receive 50 percent credit for their service, up to a maximum of six months creditable service. Third and second assistant engineers may only receive credit for underway watchstanding service.

D. Propulsion Modes.

Engineering licenses are issued for service on steam vessels or motor vessels, or both.

1. Minimum Service Requirements.

For original or raise of grade of engineer licenses, at least one-third of the required service must have been obtained on vessels of the particular mode of propulsion for which application is made. An applicant holding a license endorsed for a single propulsion mode may qualify in the other propulsion mode by meeting one of the provisions of 46 CFR 10.502(b). Applicants may also qualify by accumulating the additional time needed to have one-third of the total required experience on vessels of that mode. This is one of the few instances where service acquired before the issuance of a license may be used for the addition of an endorsement (46 CFR 10.207(c)(3)).

EXAMPLE: A third assistant engineer of steam and motor vessels (3 A/E Steam & Motor) presents ten months service on motor vessels and 2 months service on steam vessels. The applicant qualifies for second assistant engineer of motor vessels (2 A/E Motor) but lacks two months service on steam vessels to qualify as 2 A/E Steam. After obtaining the license as 2 A/E Motor, the applicant may later obtain two more months service as 3 A/E Steam and qualify for 2 A/E Steam.

2. Gas Turbine Vessels.

A motor license and a steam license both qualify the holder to serve on board gas turbine propelled vessels. No specific endorsement is needed. Service obtained aboard gas turbine propelled vessels may be credited as both motor service or steam service, but can not be credited twice. For example, an applicant for a raise of grade from 3 A/E of Steam and Motor Vessels to 2 A/E of Steam and Motor Vessels has 360 days of gas turbine service. The time may be credited as 120 days towards each mode and 120 days towards satisfying the 360 day requirement.

3. Coast Guard Approved Courses.

A course approved for engineers adding a propulsion mode may be repeated for credit at each license grade.

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4. Equivalent Service.

Equivalent service allowed under 46 CFR 10.211(b) is considered as neither motor service nor steam service. It can be used to meet the total service requirements but not the service required to qualify for a particular mode of propulsion. Credit given for academy service is neither steam service nor motor service. The one-third criteria of 46 CFR 10.502(a) for qualifying in a particular propulsion mode should only be applied to the service needed along with the academy credit.

E. Horsepower Limitations.

Total main engine shaft horsepower is to be used when evaluating engineering service. The horsepower of auxiliaries will not be considered regardless of how large they may be. Refer to the Marine Safety Information System (MSIS), Merchant Vessels Of The United States, CG-408, and publications such as Jane's Fighting Ships and Lloyd's Register for horsepower.

1. Raising Or Removing Horsepower.

The procedures for raising or removing horsepower limitations on licenses are contained in 46 CFR 10.502 and 10.503. Cases requiring special consideration may be referred to NMC-4C for evaluation.

2. Minimum Service.

For engineers qualifying in both propulsion modes, the horsepower limitation will be computed for each propulsion mode. 46 CFR 10.502 requires one third of the minimum service requirements to be on the particular propulsion mode for which applied. If all of that "one third" is on vessels of at least 4000 horsepower, the applicant qualifies for an unlimited horsepower license in that mode. If it is not, compute a horsepower limitation for that propulsion mode by applying the 25 percent and 50 percent criteria of 46 CFR 503(b) to the entire minimum service requirement.

3. Limited Engineering License Raises Of Grade (Other Than Designated Duty Engineers).

Although the regulations state the service requirements for all limited engineer licenses in terms of the total service required, horsepower limitations for raises of grade should be determined based on the additional service needed for the raise of grade.

EXAMPLE: An assistant engineer of uninspected fishing industry vessels applies for a raise of grade to chief engineer and presents a year of service in addition to the three years already presented to qualify for the assistant engineer license. Although 46 CFR 10.530(c) requires four years of service to qualify for this license, the horsepower limitation should be based on the one year of additional service needed to raise the license from assistant engineer to chief engineer. This is consistent with the way horsepower limitations are determined for upper level licenses. However, for an original license as chief engineer of uninspected fishing industry vessels, the horsepower limitation is based on the entire four years of service required.

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4. Designated Duty Engineer.

The only horsepower levels for designated duty engineer are 1000, 4000, and any horsepower. They are determined by the amount of qualifying service rather than the horsepower of the vessels on which the service was obtained. The criteria for each limit is set forth by 46 CFR 10.524(b).

F. Fishing Industry Vessel Licenses.

Fishing industry vessel licenses are only needed for offshore service. They are issued to comply with 46 U.S.C. 8304, which requires engineers on vessels of at least 200 gross tons operating upon the high seas to be licensed.

G. Service Aboard Liquefied Natural Gas (LNG) Vessels.

The chief engineer, first assistant engineer and cargo engineer serving aboard LNG vessels shall be specially trained to carry out their duties. Successful completion of an approved Tankerman - PIC LG course can be used for this purpose.

H. OCMI's Discretion.

In unusual circumstances, an OCMI may endorse a license for a limited increase in horsepower in a lower grade, after reviewing the applicant's experience, the license(s) held, and examinations taken. Similarly, the OCMI may permit an applicant holding a license endorsed for 4000 horsepower or more to be examined for a raise to the next higher grade of license. This shall be limited to 20 percent of the horsepower of the license held (not to exceed 2000 horsepower). These provisions shall be used only when the applicant has a firm commitment of employment; the increase in scope or raise of grade shall be limited to cover the vessel to which the applicant will be assigned. Extreme caution must be applied in cases of this nature.

I. Licenses For Mobile Offshore Drilling Units (MODUs).

The regulations prescribe chief engineer and assistant engineer licenses for MODUs. They permit service on both self- propelled and non-self-propelled units. In every case a certain amount of service is required to be on self-propelled units to qualify for a MODU license.

1. Licenses Limited To Non-Self-propelled MODUs.

Although the regulations do not provide for licenses limited to non-self-propelled MODUs, the Coast Guard recognizes there is a need for such licenses. A license limited to non-self-propelled MODUs may be issued to applicants that qualify for a standard MODU license in all respects, including total sea service, other than having the required service aboard self-propelled MODUs. Such applicants may elect to take a limited examination. A limited examination is a standard examination with inapplicable questions deleted.

2. Removing Non-Self-Propelled Limitations.

Licenses limited to non-self-propelled MODUs may be converted to standard MODU licenses by showing the necessary service aboard self-propelled MODUs and completing any examination deficiencies.

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J. North American Trailing Company Self-Propelled Dredges.

North American Trailing Company owns four self-propelled dredges that are over 2200 gross tons. Chief engineers (limited) and designated duty engineers may serve on the vessels as licensed engineers on inland waters, but because of the vessels' tonnage, not on the Great Lakes or offshore waters. Unlimited chief and assistant engineer licenses are needed to serve aboard the vessels when they operate on the Great Lakes or offshore. To meet the needs of the industry, a holder of a second assistant engineer license of motor vessels of any horsepower may upgrade to a chief engineer license limited to the dredges operated by North American Trailing Company of not more than 5000 horsepower. The applicant must submit a letter from the company requesting this limited chief engineer license and pass the engineering safety module of the chief engineer's examination. The intent of the endorsement is for the company to meet the manning requirements and allow licensed engineers on board North American Trailing Company's dredges to continue to obtain qualifying service toward a first assistant engineer license.

K. T-AGOS Class Vessels.

This policy only applies to the STALWART class T-AGOS vessels, T-AGOS 1 through T-AGOS 18. They were originally admeasured as less than 1600 gross tons and later re-admeasured as over 1600 gross tons. This tonnage increase prevented chief engineers (limited) and assistant engineers (limited) from continuing to serve on them. The following policy is intended to allow engineers that have served on the STALWART class T-AGOS vessels to continue serving on them. Service aboard them is creditable toward unlimited licenses (note: they are 1600 horsepower).

1. Licenses With T-AGOS Endorsements.

Licenses as chief engineer or first assistant engineer of STALWART class T-AGOS vessels remain in effect and may be renewed. They may not be used to bypass any grade in the normal licensing progression.

2. Licenses Without T-AGOS Endorsements.

Chief engineers (limited) qualify for endorsement as chief engineer of STALWART class T-AGOS vessels if they served as chief engineer on them. They qualify for endorsement as first assistant engineer of STALWART class T-AGOS vessels if they served as assistant engineer aboard them. Second and third assistant engineers and assistant engineers (limited) qualify for endorsement as first assistant engineer of STALWART class T-AGOS vessels if they served as assistant engineer aboard them. These endorsements will not be given to any other applicants. Newly hired engineers must have an appropriate upper level license.

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PART A: MARINER CREDENTIALING**CHAPTER 13: LICENSING FOR OPERATORS OF UNINSPECTED VESSELS****A. Operator Uninspected Towing Vessels (OUTV).**

The Coast Guard's authority to issue licenses for Operators of Uninspected Towing Vessels (OUTV) can be found under Title 46 U.S.C. 7101. Title 46 U.S.C. 8904 requires licensed operators aboard all commercial vessels of 26 or more feet in length engaged or intending to engage in the act of towing. The only exception are vessels of less than 200 gross tons engaged in the mineral and oil industry and having offshore mineral and oil industry sites or equipment as their ultimate destination or place of departure. When on the high seas, OUTVs are limited to vessels less than 200 gross tons. This is to conform with the Officers' Competency Certificates Convention, 1936, 46 U.S.C. 8304, which requires vessels of 200 gross tons or more on the high seas (seaward of the Boundary Line) be manned by licensed masters and mates.

1. Background On Routes.

When the OUTV license was originated in 1973 there were five general routes: oceans, oceans not more than 200 miles offshore, inland, Great Lakes, and Western Rivers. The routes were compatible with the four different sets of navigation rules in effect at the time: COLREGS, Inland, Great Lakes, and Western Rivers. Applicants had to be examined on the rules applicable to each route. Except for the ocean routes each route was separate with no route being superior to another. Applicants qualifying for ocean routes also qualified for inland waters without showing 90 additional days on inland waters. Experience on ocean routes would necessarily include service on inland waters since ocean voyages would begin and end on inland waters. When the inland navigation rules were later applied to all inland waters including Great Lakes and Western Rivers, the Coast Guard determined that the route for inland waters should include Western Rivers and Great Lakes.

2. Current Routes.

OUTV licenses are issued with the following routes. Each route includes all the routes listed below it. Although masters and mates may have routes for Western Rivers, rivers other than Western Rivers, or (all) rivers, these route descriptions are not the ones that apply to OUTV. The route descriptions to be used for OUTV are prescribed by 46 CFR 10.464(b) and are listed below. OCMI's should use the routes listed. Limited local routes should be used when an applicant requests or when an applicant's experience is so limited that a limited route is necessary

- a. Oceans (domestic trade) waters;
- b. Near coastal waters;
- c. Great Lakes and inland waters;
- d. Western Rivers; and
- e. Limited local area designated by the OCMI.

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An OUTV seeking an increase in scope satisfies the service requirement of 46 CFR 10.464(c)(1)(iii) by presenting three months of service in the highest route applied for. For example, an applicant with a Western Rivers OUTV license seeking an endorsement for near coastal waters need only present evidence of three months of service on near coastal waters. Service on Great Lakes or inland waters is not required.

b. Examinations.

Check Commandant Publication P16721.35, Guide for Administration of Merchant Marine Deck Examinations (Deck Guide) to see what additional testing may be required for an increase in scope. A rules of the road examination should be given to all applicants for additional endorsements unless the exam was completed within the last 12 months.

c. Ocean (Domestic Trade).

Note that 46 CFR 10.464(e) has firefighting, radar observer and able seaman requirements for the ocean (Domestic Trade) route. "Qualification as Able Seaman..." in this regulation has the same meaning as when it is used in 46 CFR 10.401(g). See section 10.A.3 of this volume for a discussion of this requirement.

d. Oceans.

Prior to implementation of the new licensing structure in 1987, some OUTVs held unlimited ocean routes. Those licenses did not conform to STCW so when they were renewed they were reissued as "Master of Ocean Motor Vessels of not more than 200 gross tons (restricted to uninspected towing vessels); also Operator of Uninspected Towing Vessels Great Lakes and Inland." The OUTV phrase must be included because the 200 gross ton limitation should not apply on Great Lakes and inland waters. These licenses may not be modified. To increase tonnage or obtain a standard master's license, applicants must be evaluated as an OUTV upgrading to master. These existing licenses may be renewed; however, no original licenses with the above endorsement shall be issued.

e. Limited Routes.

When requested by an applicant, OCMI's should liberally interpret their authority to issue licenses with limited local routes. For example, an OUTV Western Rivers wants to operate on the Gulf Intercoastal Waterway but does not want to take the entire inland OUTV exam. The OCMI may modify an inland exam by deleting inappropriate questions and issue an inland endorsement with appropriate limitations. The intent of having limited local routes is to give applicants the option of taking a simplified or limited examination if they only need a limited license. It is not intended to be a tool for the OCMI to limit the applicant to a small geographic area.

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46 CFR 10.205(i)(1) provides for oral examinations for applicants who have demonstrated difficulty in reading and understanding the exam questions. An OUTV license issued as a result of an oral-assisted exam shall be limited to the specific route upon which the majority of experience was obtained rather than the standard broad routes. The route is limited because such applicants, with limited reading ability, have only their past experience to rely on while operating. Applicants who can pass a written examination can refer to references such as the coast pilot when operating in areas where they have no experience. Applicants should also be evaluated to determine if they can read and understand cargo information cards. If not, the license shall preclude service on vessels towing (regardless of mode) barges carrying cargoes regulated under 46 CFR, Subchapter O.

5. Advancement To Other Licenses.

Many master and mate licenses do not have a specific provision for using OUTV service. For those licenses, service as OUTV should be considered to be equivalent to service as mate. It should not be considered to be equivalent to service as master.

6. Masters, Mates, Pilots Obtaining OUTV Licenses.a. Background.

When the OUTV license was instituted in 1973, many master and mate licenses had trade restrictions or narrow geographic limitations. In keeping with Congress's intention when the OUTV license was created, the Coast Guard's policy has been to allow masters, mates and pilots to operate uninspected towing vessels in circumstances not authorized by their licenses by providing an easy means to obtain an OUTV license. Depending on the license held, the OUTV license could be obtained merely upon request or by showing some additional service and passing a limited examination.

b. Masters And Mates.

There is no longer a need for policies that provide special paths from master or mate to OUTV. The current licensing structure no longer contains master or mate licenses with trade restrictions (except uninspected fishing industry vessels) or narrow geographic limitations. In addition, 46 CFR 15.910 allows many masters and mates to serve as OUTV without specific endorsement although the limitations on some licenses do apply. (See chapter 19 of this volume for more detailed information.) Masters and mates who want an OUTV license must meet all the requirements of 46 CFR 10.464.

c. Pilots.

Licensed first class pilots may obtain a license as OUTV upon application. No additional service is required. Applicants must pass an appropriate rules of the road examination if they have not passed such an exam within the last 12 months. The training requirements of 46 CFR 10.464(e) apply if the license is for ocean (domestic trade) waters. The route of the OUTV license will be for the broad geographic area

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that includes the waters authorized on the pilot license. For example, "First class pilot on the Chesapeake Bay" would qualify for an OUTV license for Great Lakes and inland waters; "On the Mississippi River" would qualify for an OUTV license for Western Rivers; and "[Any portion of the] Great Lakes" would qualify for an OUTV license for Great Lakes and inland waters.

B. Operator Uninspected Passenger Vessels (OUPV).

The Coast Guard's authority to issue licenses for operators of uninspected passenger vessels (OUPV) can be found under Title 46 U.S.C. 7101. Title 46 U.S.C. 8903 requires each self-propelled uninspected passenger vessel, as defined in 46 U.S.C. 2101, to be operated by a licensed operator. Vessels such as pure sail vessels, oar-propelled vessels and white-water rafts are not considered self propelled and therefore do not require licensed operators

1. Service Requirements.**a. General Experience.**

An applicant for a license as operator of uninspected passenger vessels must present evidence of at least one year's experience in the operation of vessels. However, 46 CFR 10.202(h) allows the OCMI to reduce the service requirements. If service requirements are reduced, the license should have appropriate restrictions.

b. Proof Of Ownership And Self-Certification.

Applicants who self-certify their sea time are required to present evidence of ownership of the vessel. Proof of ownership may be the vessel's document, state registration or any other form of documentation that satisfies the OCMI that the applicant did in fact own the vessel during the period of service. This practice is to comply with a DOT inspector general audit recommendation that more of the information provided by an applicant be verified.

c. Minimum And Maximum Vessel Size.

The regulations do not specify either minimum or maximum vessel size for experience to qualify for an OUPV license and it is not reasonable to do so by policy. Each application must be evaluated on its merit. 46 CFR 10.201(a) states that each applicant must satisfy the OCMI that he or she possesses all the qualifications for the license. Experience gained entirely on large ships may not be appropriate to qualify for an OUPV license. Likewise, experience gained entirely on sail boards, kayaks, canoes, jet skis, etc., may also be inappropriate to qualify as an OUPV. However, OCMI's may accept a limited amount of experience gained on such vessels if the applicant's overall experience demonstrates an ability to safely operate the type of six-passenger craft envisioned by the law. When upgrading a limited jet ski license issued under paragraph 13.B.2.b, the jet ski service used to qualify for it shall be credited toward the service required to qualify for an unrestricted OUPV license.

d. Service Upon Other Types Of Small Craft.

Service on various types of motor-propelled craft of reduced size, such as yachts, fishing boats, tugs, and public vessels shall be credited upon documentation that the applicant's service was directly related to the operation of such vessels.

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- e. Operation Of Military Small Craft.

An applicant who has operated small craft while serving in the Armed Forces shall be credited for such service upon documentary evidence that underway operation of small craft was the applicant's primary duty during the period stated.
2. Routes And Limitations.

An operator of uninspected passenger vessels is limited to either near coastal waters (not more than 100 nautical miles (200 km) offshore), Great Lakes and inland waters, or inland waters (not including the Great Lakes). An OCMI may restrict a license to a limited geographic area when the qualifying experience is very limited in scope; operators of tenders at yacht clubs and marinas for instance.

 - a. Boy Scout Sea Explorer Program.

The U.S. Coast Guard/Boy Scouts of America Inspection and Certification Agreement dated 1 October 1979, has been cancelled. See Chapter 1, paragraph P.11 of this manual.
 - b. Jet Skis.

Although operating jet skis is not considered appropriate as the sole means to qualify as an OUPV, there are instances when jet ski operators must be licensed. Therefore, OCMI's may issue licenses for jet ski operators following the same philosophy and requirements contained in 46 CFR 10.466(g) for formal camps, yacht clubs and marinas. Applicants must document a need for such a license. Licenses should be very limited as to type of service and area of operation. As discussed above, only a limited amount of service on jet skis can be accepted toward an unrestricted OUPV license.
 - c. Navigable Waters Of The U.S.

At one time OUPV licenses could be issued with the route, "navigable waters of the United States." That route encompassed coastal waters of the United States not more than 3 miles offshore and many internal waters. This route is no longer used when issuing original OUPV licenses; however, existing licenses should be renewed without change unless the holder qualifies for a route extension to near coastal waters (not more than 100 miles (200 km) offshore).
3. Age.

46 CFR 10.201(f)(2) requires applicants to be at least 18 years old to qualify for an OUPV license. Part 10.202(h) allows the OCMI to lower the age requirement. The OCMI must determine if the lower age limit makes putting restrictions on the license appropriate.
4. OUPV To Master, Mate And Increase In Scope.
 - a. Creditable Service.

46 CFR 10.207(c)(3) does not prohibit experience used to qualify as an OUPV from being used to meet the service requirements for limited master or mate licenses.
 - b. To Mate Great Lakes And Inland.

Applicants holding OUPV licenses may advance to Mate Great Lakes and Inland 100 gross tons by taking a partial exam as permitted by (46 CFR 10.454(d)). Commandant

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Publication P16721.35, Guide for Administration of Merchant Marine Deck Examinations (Deck Guide) specifies the partial exam to be given. Note that to obtain a Great Lakes route, the applicant must have three months of service on the Great Lakes.

c. To Mate Near Coastal.

Applicants holding OUPV licenses with a near coastal route may advance to Mate near coastal by passing a partial exam based on the Subchapter T regulations (46 CFR 10.427(b)). Commandant Publication P16721.35, Guide for Administration of Merchant Marine Deck Examinations (Deck Guide) specifies the partial exam to be given. Note that this only addresses the examination to be taken. It does not relieve an OUPV (only 90 days of offshore service required) from having the 180 days of offshore service required by 46 CFR 10.427(a)(1) for mate.

d. To Master.

Per 46 CFR 10.903, an OUPV who applies directly for a license as master must take the entire examination for master. Many applicants choose to avoid the master exam by taking the partial exam for mate and then upgrading to master by showing the required experience with no additional exam required. Even if an OUPV accomplishes this during a single visit, RECs should consider it two transactions: OUPV to mate, then mate to master.

e. Inland To Near Coastal.

Applicants increasing the scope of their licenses from OUPV inland to near coastal, need only show the necessary offshore service. A rules of the road examination is only required if the combined inland and international rules module was not previously passed. A practical navigation module is also required if the applicant did not take a practical navigation test as part of the OUPV exam. (Practical navigation modules were not part of OUPV exams prior to December 1987.)

5. OUPV License Endorsed On Master/Mate License.

If an OUPV holds a master or mate license, the OUPV license will be endorsed on it; separate licenses will not be issued.

C. Uninspected Fishing Industry Vessels (UFIVs).

1. General.

A Fishing Industry Vessel License is issued for ocean and near coastal routes only. 46 U.S.C. 8304, with certain exemptions, requires all masters and mates on all vessels of at least 200 gross tons operating upon the high seas to be licensed. The only difference between the requirements for the ocean and near coastal license is the examination. For a license limited to near coastal waters the celestial module will not be administered.

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Applicants require four years of total service on ocean or near coastal routes. One year of this service must have been as licensed master, as unlicensed master, or as licensed mate or equivalent supervisory position while holding a license as master, mate, operator of uninspected towing vessels, or operator of uninspected passenger vessels. It has been determined that the wording "unlicensed master" refers to an unlicensed individual in charge of operating uninspected fishing industry vessels of less than 200 gross tons or those fishing industry vessels over 200 gross tons operating solely within the Boundary Line.

3. Tonnage Limits.

There are three criteria for determining tonnage limitations for licenses for uninspected fishing industry vessels; service on vessels over 50 gross tons; service on vessels over 100 gross tons; and computations under 46 CFR 10.402(b) based on the size of vessels constituting 25% and 50% of the qualifying service. Each method is independent of the others. Apply the criteria that results in the highest tonnage limitation.

[EXAMPLE: An applicant for master UFIV has all qualifying service on a vessel of 800 gross tons.]

FIRST CRITERIA: More than two years of the service (including mate) was on vessels over 50 gross tons so applicant qualifies for a 500 gross ton limitation.

SECOND CRITERIA: More than two years of the service (including mate) was on vessels over 100 gross tons so applicant qualifies for a 1600 gross ton limitation.

THIRD CRITERIA: Qualifies for the highest tonnage on which 25% of the service was performed. That tonnage is 800 gross tons, which rounded up to the next thousand, is 1000 gross tons. Also qualifies for 150% of the highest tonnage on which 50% of the required service was performed. 150% of 800 gross tons is 1200 that, rounded up to the next thousand, is 2000 gross tons.

RESULT: Of the tonnages computed (500, 1000, 1600 and 2000), 2000 gross tons is the highest so the applicant qualifies as master of UFIV of not more than 2000 gross tons.

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A. Certificates Of Registry As Staff Officers.

1. Statutory Authority.

The authority for the issuance of certificates of registry is in 46 U.S.C. 7101. Statutory qualifications for certificates of registry are in 46 U.S.C. 7102, 7104, 7105, 7107, 7108 and 7109.

2. General.

The statutes allow only certificates of registry to be issued for pursers, medical doctors (formerly surgeons) and professional nurses. The regulations specify various grades of purser. There are no grades for medical doctor or professional nurse.

3. Ratings.

The holder of a certificate of registry may apply to have a rating endorsed on the certificate. The only ratings currently allowed are: marine physician assistant and hospital corpsman.

a. Marine Physician Assistant.

To qualify for an endorsement as marine physician assistant, an applicant must successfully complete an accredited course of instruction for a physician's assistant or a nurse practitioner program. Physician's assistant courses must be approved by the American Medical Society or the National Commission on Certification of Physician's Assistants. When answering inquiries from the public, it is important to understand that the marine physician assistant rating only means the holder has met the Coast Guard's requirements for that rating. It does not necessarily mean that the holder meets the requirements of any other federal, state, or local agency for physician assistants.

b. Hospital Corpsman.

The requirements for this rating are fully explained by 46 CFR 10.809(b).

c. Pharmacist's Mate.

Original endorsements as pharmacist's mate are no longer issued. The holder of a pharmacist's mate rating may renew it or convert it to a hospital corpsman rating.

4. Justifying The Need For Certificates Of Registry.

46 CFR 10.805 requires that applicants present a letter justifying the need for the certificate of registry. This applies to all applicants, both civilian and military. It also applies to all original certificates of registry regardless of the grade of the certificate. The wording of the regulation is vague and does not prohibit the applicant from writing the letter. Regardless of the source of the letter, OCMI's must be satisfied that there is a real need for the certificate of registry. Note that staff officers are only required to be registered if they serve on Great Lakes vessels (other than those ferrying passengers and cars) and ocean vessels. (46 U.S.C. 8302)

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5. Expiration.
46 U.S.C. 7107 requires certificates of registry be issued for five-year periods with the understanding that radio officers must keep their FCC license valid for their license or document to be valid.
6. Currency Of State Licenses For Medical Doctors And Registered Nurses.
For a certificate as medical doctor or professional nurse to remain valid, 46 U.S.C. 7107 requires the holder to keep the state license as medical doctor or registered nurse current. This is the holder's responsibility. There is no need for the expiration date of a certificate of registry to coincide with the expiration date of a state license. The state license must, however, be current when the certificate of registry is renewed.
7. Requirement For Merchant Mariner's Document.
Note that 46 CFR 10.805(b) requires applicants to hold or apply for a merchant mariner's document
8. Temporary Permits.
No temporary letter authorizing employment as a staff officer may be issued without the approval of Commanding Officer, NMC.

B. Licenses For Radio Officers.

1. Statutory Authority.
The authority to grant licenses as radio officer is 46 U.S.C. 7101. Statutory requirements for licenses as radio officer are found in 46 U.S.C. 7103.
2. Application Procedure.
In addition to meeting the standard requirements for all licenses, Regional Examination Centers (RECs) will review the application including all supporting documentation and interview the applicant.

Note: A National Agency check is no longer required to be submitted in the application procedure.

3. Application Approval.
The material listed below must be sent to Commanding Officer, NMC.
 - a. Form CG-719B.
License And Renewal Application (original).
 - b. Form FD-258.
Applicant Fingerprint Forms (2).
 - c. Radiotelegraph Operator License.
Copy (REC should sight original) of applicant's current Federal Communications Commission (FCC) first or second class radiotelegraph operator's certificate.

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- d. GMDSS Operator Certificate.
Copy (REC should sight original) of applicant's current Federal Communications Commission (FCC) GMDSS operator's certificate. This copy is required only when applying for STCW certification or endorsement for GMDSS radio operator. (See 46 CFR 10.205(n).)
 - e. GMDSS Course Completion Certificate.
Copy (REC should sight original) of applicant's completion certificate of a Coast Guard approved course for operator of radio in the GMDSS. This copy is required only when applying for STCW certification or endorsement for GMDSS radio operator.
 - f. Form CG-2765.
U.S. Coast Guard Intelligence Agency Check Request Form is now obsolete and the Intelligence Agency Check is no longer required for radio officers.
4. Currency Of FCC Licenses.
For a radio officer license to remain valid, 46 U.S.C. 7106, and the wording on the license itself, require the holder to keep the FCC license current. This is the holder's responsibility. There is no need for the expiration date of a radio officer license to coincide with the expiration date of the FCC license. The FCC license must, however, be current when the radio officer license is renewed.
 5. Merchant Mariner's Documents (MMDs) For Radio Officers.
Radio officers should be encouraged to apply for MMDs when they receive their licenses. An MMD is required to serve on most vessels that are required to carry a radio officer. Refer to chapter 15 for information on issuing MMDs to radio officers.

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A. General Provisions.

1. Authority.

A merchant mariner's document (MMD) issued by an Officer in Charge, Marine Inspection (OCMI) in accordance with 46 U.S.C. 7302 is required aboard those U.S. merchant vessels specified in 46 U.S.C. 8701. These vessels include those at anchor, docked, and loading or unloading passengers or cargo, but not those laid up, dismantled, or out of commission.

2. Seamen's Records.

Records of merchant mariners and vessels have been maintained by the Commandant since 1937. Only those records reflecting activities within the five preceding years are kept at Headquarters; all others are stored at the Federal Records Center in Suitland, MD. Records of merchant mariners who became inactive prior to 1937 are available from the, Judicial, Fiscal and Social Branch, National Archives, Washington, D.C. 20408.

3. Merchant Mariner's Documents (MMDs).

MMD Form CG-2838 replaces previously-issued Certificates of Identification, Certificates of Service, and Certificates of Efficiency. These certificates, no longer acceptable for employment, may be exchanged for current MMDs bearing corresponding endorsements. [NOTE: Holders of able seaman and lifeboatman certificates issued prior to 25 June 1936 must now be treated as original applicants.] An MMD is subject to suspension and revocation (S&R) under 46 U.S.C. 7701 on the same grounds and in the same manner as licenses of officers and Certificates of Registry. An MMD issued to a licensed officer is a certificate of service authorizing the officer to serve in unlicensed capacities, in the department in which licensed (see 46 CFR 12.02-11(c)).

4. Appeals.

Any applicant adversely affected by a decision of or action by the OCMI shall be advised of the appeal procedures contained in 46 CFR 12.02-25.

B. Types Of Transactions.

1. Original Applications.

The new application form shall be used by all applicants for an original MMD.

2. Supplemental Applications.

The new application form shall be used:

- a. When applications are made for qualified ratings requiring evidence of experience or training (see Section 15.E.1 below);
- b. When the seaman's name has been changed (see section 15.F);
- c. When correcting the date and/or place of birth, or describing the evidence establishing citizenship subsequent to issuance of the original document; or

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When application is made to remove a previously imposed vessel restriction. The applicant's service record, evidence of birth or citizenship, and identification of the surrendered document should be noted on this application. However, such applications should be coordinated with the OCMI responsible for placing the original restriction to determine all fulfilling requirements. Applicants shall be required to document all required service.

3. Additional Endorsements, Exchange, And Replacement Of Documents.

The new application form shall be used by applicants for exchanging and replacing documents, and requesting certain additional endorsements, as follows:

- a. For additional endorsements not requiring proof of sea service or training (see section E of this chapter);
- b. To report the exchange of Continuous Discharge Books (CDBs) for MMDs or vice versa (see section L of this chapter);
- c. For the exchange of MMDs bearing "Z" or "Bk" numbers; and
- d. To report the replacement of mutilated documents (see section 15.K.2).

4. Duplicate Documents.

The new application form shall be used to apply for duplicate MMDs, Continuous Discharge Books (CDBs), and Certificates of Discharge (record of service), (see section 15.K.1), and to request a continuation of a CDB (see section 15.L.3).

5. Renewal Of Documents.

- a. The renewed MMD will be issued for a period of five years from the date of the original application. Mariners who hold a license and an MMD should be encouraged to renew the MMD at the time of license renewal to allow for concurrent renewal dates.
- b. Original and supplemental, MMDs will be issued for a period of five years.
- c. On the application, the word renewal should be shown in the type of transaction section. The expiration date shall be noted in section VIII.

C. Application For An Original MMD.

1. Required Documentation.

No evidence of service is required to obtain entry ratings. The applicant must present proof of a drug test, a social security card, and proof of legal entry into the United States. Evidence of service must be presented to establish an individual's qualifications for qualified ratings. Service on U.S. flag merchant vessels will be documented by certificates of discharge or letters from the employer. Evidence of service aboard foreign merchant marine and military vessels is also acceptable, however, local evaluations shall be made to determine the equivalency of such service to that obtained aboard U.S.

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merchant vessels. For military service, documentation shall be a Transcript of Sea Service from the U.S. Navy, Coast Guard, or Army Transportation Corps, or equivalent documentation providing vessel information, capacity served, and dates aboard each vessel.

Applicants who have been disenrolled from a federal, state, or Great Lakes maritime academy or another Coast Guard approved maritime training center who present evidence of sea service during their training may receive up to six months' credit towards a qualified rating in the department in which the service was obtained. They must present a transcript from the school verifying completion of at least one semester and the amount of sea service obtained.

When the OCMI has issued an MMD to a cadet prior to completion of the lifeboatman requirements, a letter of qualification as lifeboatman may be issued in lieu of an endorsement to the MMD. This letter shall state that the cadet is a qualified lifeboatman and may fill the lifeboatman billets required aboard on the school ship by the COI. If a cadet is disenrolled from the school prior to graduation, but has qualified as a lifeboatman, an MMD for entry ratings may be issued with the lifeboatman endorsement; a letter of commitment from an employer is not required.

2. Required Information.

a. Name.

The applicant's name, as shown on a birth, baptismal, or naturalization certificate, must appear in full. It is common practice for a child to be known by a nickname or derivative of the legal name; as adults, these names tend to stick and few individuals seek court orders to adopt such names. When the name by which the applicant is known is different from that appearing on the documentation of citizenship, certified copies of a court order or other official document such as a marriage license, effecting a change of name must be presented and submitted to the National Maritime Center (NMC-4A) with the new application form. Without a court order, the name on the documentation of citizenship must be used.

b. Address.

A permanent address should be listed rather than a temporary local address. If the applicant's permanent address is outside the U.S., the applicant should furnish the name and address of a U.S. facility, such as an embassy. Such information should be entered in the space entitled "Record of Qualifying Service."

c. Minimum Age Requirements.

No MMD shall be issued to an applicant under 16 years of age. An applicant between 16 and 18 who presents a notarized statement of parental or guardian's consent may be issued an MMD, unless the applicant is disqualified by a reason other than age. When applicable, a statement that such consent has been presented shall be made in the space entitled "Service Record." The notarized statement may be attached with the application.

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d. Complexion.

An entry shall be made that best describes the hue or general color of the applicant's skin, e.g., fair, olive, ruddy, red, yellow, black, or brown. In the last two examples an adjective more closely describing tint may be prefixed: light, medium, or dark. In these instances abbreviations may be used, e.g., LT brown. A common misconception is the complexion description of a light skinned person of color; if applicable in such instances, "fair" may be used to describe complexion.

e. Digital Data Card System.

The "Digital Data Card System" (DDCS) has replaced the need for photographs. Photographs are taken at the REC by the DDCS camera that reproduces the image digitally for placement on the MMD. Photographs are stored in the DDCS system memory and may be reproduced at a later date if/when necessary. Photographs are now needed only when an applicant desires to apply for or renew an MMD by mail. In such cases, submitted photographs are "photographed" and digitally reproduced by and stored in the DDCS. If the applicant is applying by mail, he shall provide two (three, if the REC wants a picture in file) unmounted photos, 2 X 1.5 inches in size, taken within one year of the application. They must show the full face, at least one inch in height, measured from bottom of chin to normal hairline, with head uncovered. Color photographs are acceptable. Polaroid or other "instant" type photographs may be accepted if:

- (1) All photographs submitted do not contain any obvious differences;
- (2) The quality of the photograph is such that the image will remain identifiable for the life of the document; and
- (3) The background to the image on the photograph is plain, flat, and clearly defines the intended image.

f. Citizenship.

Applicants who claim to be citizens of the United States must present acceptable evidence of citizenship (see 46 CFR 12.02-13) at the time of filing the original application. Acceptable evidence of citizenship is listed in 46 CFR 10.205(c), in the order of desirability. [NOTE: 46 CFR 10.205(c), with the exception of paragraphs (c)(1)(ii) and (c)(1)(viii), applies to persons who are native-born; paragraphs (c)(1)(ii) and (c)(1)(viii) apply to naturalized persons.] As birth records have been maintained throughout the U.S. since 1919, affidavits of citizenship shall not be accepted unless an applicant presents evidence of an unsuccessful attempt to obtain a birth certificate. [NOTE: In such cases, affidavits shall be returned to applicants after notation on the application form that they were submitted and copies have been made.] Information in the citizenship section of the application must be (a) USA; (b) another country (specific country) and a resident alien; (c) another country (specific country) and a nonresident alien.

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g. Drug Convictions.

If an applicant indicates drug use or conviction, other criminal convictions, or National Driver Register motor vehicle convictions, refer to Chapter 3 of this volume.

h. License Or Certificate Record.

Particular attention should be given to statements pertaining to the applicant's license or certificate record. Evasive statements on the application, such as "Never previously issued seamen's documents from this office," SHALL NOT be accepted. All previous MMD/license histories shall be listed. All actions under 46 U.S.C. 7701, including voluntary surrenders, shall be indicated. If the application contains a "Yes" answer regarding suspension, revocation, or voluntary surrender of a previously issued MMD, Commandant (G-MOA-2) shall be requested to provide detailed information in the matter.

i. Record Of Qualifying Service.

When a company letter is presented indicating qualifying service, the source, date, type, and amount of service should be entered in the space "Record of Qualifying Service" on the new application form. When the qualifying service is from Certificates of Discharge, indicate "Certificates of Discharge (or computer printout) indicating ____ days of service." There is no need to list each vessel and dates of service. When a Transcript of Sea Service is accepted, the respective spaces shall show branch of service, the names of the vessels, the ratings in which the applicant served, and the complete dates of such service or a certified copy of the Transcript of Sea Service shall be attached to the application form. An additional sheet shall be attached to the application when the information exceeds the allotted space on the form.

j. Section V - Certification And Oath.

This section shall be signed and dated by the applicant. The oath must be administered by authorized Coast Guard personnel. However, when completing a transaction by mail, the oath must be administered and verified by a certified notary public and signed by the applicant. RECs shall ensure that the oath is signed and properly witnessed.

k. Preparation Of Fingerprint Records.

To comply with FBI policy and procedures governing criminal history evaluations, the National Maritime Center (NMC-4A), requires that two classifiable Form FD-258 fingerprint cards be submitted for an original license and certificate of registry and with each application for an original Merchant Mariner's Document. The REC shall submit one card for an original license or certificate of registry and one card attached with one staple in the upper left corner with an application form for a MMD. The second card shall remain at the REC for use if the first card is unclassifiable. Only the two fingerprint cards need to be submitted when the applicant applies for a license and a Merchant Mariner's Document at the same time or within 6 months of a previous application. Particular attention must be given to obtaining legible prints. The majority of rejections are due to one or more fingers not being rolled fully, the

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charts being smeared as the finger is being removed from the chart, or use of too much or too little ink. Any fingerprint that is smudged or otherwise illegible will be rejected. In addition, the FBI's system will reject any card containing any discrepancy which may include a blank entry or even a middle initial inserted in the place of a full middle name. The Form FD-258 must have the proper ORI code number DCCG 00000, US COAST GUARD, WASH DC. A supply of Form FD-258 with the proper code may be obtained by calling the National Maritime Center (NMC-4A).

(1) Applicant Fingerprint Form, FD-258.

To obtain the needed information for a criminal record check, compliance with the instructions on the back of Form FD-258 is essential. Personnel must ensure that the following information is provided.

- (a) Applicant's Name. (First, Middle, Last, Suffix)
- (b) Social Security Number.
- (c) Date of Birth.
- (d) Place of Birth.
- (e) REC Location. The space entitled "Employer and Address" should contain the name and address of the Regional Examination Center where the application is submitted.
- (f) Reason For Fingerprinting. The reason for fingerprinting (original license, license as radio officer, certificate of registry as staff officer or MMD) must be typed or legibly printed in the space designated "Reason Fingerprinted."
- (g) Race. The space for "Race" will be completed with one of the following abbreviations only:

American Indian (AI); Alaskan Native (AN);

Asian (A); Pacific Islander (PI);

Black (B); Hispanic (H); or,

White (W).

(2) Authenticity Of Information.

If for any reason you doubt the information provided by the applicant, the case shall be referred to the National Maritime Center (NMC-4A) for decision, with a letter stating the basis for doubt (including all pertinent details and justification).

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(3) Radio Officers.

When an applicant has been approved for a license as radio officer and subsequently, within the five year renewal period, applies for an original MMD endorsed "See License as Radio Officer", a second set of fingerprints need not be obtained or submitted to the Commandant.

l. Caution Against Fraudulent Applications.

An application not completed truthfully should be considered fraudulent, and any license or MMD initially issued under such an application should be voided ab initio (as if never issued; see Commandant Decision on Appeal 2025). All applicants shall be advised of the penalties for making false statements on an application form (see 18 U.S.C. 1001). Failure of the applicant to answer questions on the application may cause considerable delay in processing and issuing the document, and the applicant shall be so informed. Items not applicable should be noted by "N/A" or "None," as appropriate. When a fraudulent application is discovered the applicant shall be notified that any initial document thereby issued is "null and void" and be directed to immediately return it to the OCMI. A document that has been re-issued based on a fraudulent application cannot be declared "null and void." In these cases the documented person must be charged and taken to a hearing. These cases shall be reported to the Senior Investigating Officer (SIO). See chapter 3 of this manual.

(1) Fraudulent MMD Returned.

If the MMD is returned it shall be canceled.

(2) Fraudulent MMD Not Returned.

If the applicant refuses to return the MMD after receiving notification, the applicant's file should be forwarded to the unit's SIO for further action. An investigating officer will then determine if the case warrants filing charges against the individual with the U.S. Attorney. The OCMI should develop a working relationship with the U.S. Attorney to determine what cases should be criminally pursued and what type of documentation should be submitted. The investigating officer should make every effort to recover the certificate regardless of whether criminal charges are pursued.

m. Drug Tests.

When drug tests are required at the time of the application, the applicant shall provide proof of a test within the previous six months or of being subject to a random drug testing program for at least 60 days within the previous 185 days. Tests must be conducted by laboratories certified by the Substance Abuse and Mental Health Services Administration (SAMSA, HHS), an agency of the Department of Health and Human Services. See section 1.G.5. of this volume for more information on drug tests.

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n. National Driver's Register (NDR) Authorization Forms.

46 U.S.C. 7505, requires all applicants for merchant mariner credentials to sign a consent form giving the Coast Guard the authority to obtain a check on the mariner from the National Driver Register (NDR). This form has been incorporated into the application (CG-719B) and RECs shall ensure section 9 is filled out on the application.

3. Additional Requirements For Aliens Seeking Original MMDs.

a. General Requirements.

In addition to meeting all other requirements for original MMD applications, each alien must furnish the information listed in the following paragraphs. Applications from aliens may be accepted and processed at the REC, and original documents issued, without prior Headquarters approval. An alien is a non-U.S. citizen by birth.

b. Evidence Of Legal Entry/SSN.

Alien applicants for original MMDs are required to present evidence of lawful admission to the United States for permanent residence or for employment. This evidence may be an alien registration card issued by the Immigration and Naturalization Service (INS) or a passport entry visa or notation. The evidence should be carefully examined and, when questionable, authenticity verified with INS authorities. As with all applicants, each alien must present a social security card. This requirement is to assign a seaman identification number and establish a computerized mariner's record. In instances where social security cards are stamped "Employment Not Authorized," as in the case of certain nonresident aliens, a document may still be issued. Possession of a merchant mariner's document is not an implied right to employment. Responsibility for employing nonresident aliens, as with other document holders, lies with the employer. Illegal employment is monitored by the Social Security Administration and the Immigration and Naturalization Service.

c. Special Entries On Application Forms.

The evidence of lawful admission to the United States shall be cited on the application in the citizenship section. When the applicant is being processed for permanent residency, an entry to this effect, with the appropriate registration number or passport citation, shall be made on the application.

d. Questionnaire for National Security Positions SF-86 (formally, Coast Guard Intelligence Agency Check Request, Form CG-2765.

Form SF-86, Questionnaire for National Security Positions, replaces the previous form CG-2765. The form SF-86 must be executed for all non-U.S. citizens born outside the U.S., attached to the application and fingerprint forms, and forwarded to Commanding Officer, National Maritime Center. The NMC will forward the completed SF-86 to Immigration and Naturalization Service for processing and verification of an aliens's legal entry into the U.S. Form SF-86 is available on Form Filler. Paper copies may be ordered from regular supply sources.

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The applicant must complete Parts 1-14 (page #s 1-5), and sign the bottom of page 9. In addition, page 10 (Authorization For Release Of Information), must also be completed and signed.

D. Temporary Certificate Of Identification, Form CG-2838(T).

Effective 15 November 1992, the Temporary Certificate of Identification, Form CG-2838(T) (TMMD), will not be issued for entry ratings. Applicants for an original MMD, shall be issued Form CG-2838 if they meet all the requirements, e.g., proof of service when needed, social security card, proof of citizenship or legal entry, drug tests, physicals and examinations where required.

1. When To Issue.

The Temporary Certificate of Identification, Form CG-2838(T), may be issued in the following situations:

- a. When a mariner has lost the U.S. Merchant Mariner's Document, needs to report for work within 48 hours, and the National Maritime Center (NMC-4A) cannot verify the ratings and duplicate number.
 - (1) The mariner must appear at the REC and complete the application, for a duplicate document and pay the appropriate fee for duplicate MMD.
 - (2) The REC shall call the National Maritime Center (NMC-4A) for verification. If NMC-4A can not verify the ratings and duplicate number, the applicant may be issued a Temporary Certificate of Identification with entry ratings. For a rating other than entry ratings, the applicant must provide proof of the rating held. The proof should be in the form of certificates of discharge or an equally valid form of documentation which satisfies the local OCMI.
- b. In special cases the OCMI may determine that a Temporary Certificate of Identification (TMMD) is needed. Commandant (NMC-4A) shall be notified of the circumstances and duration of the Temporary Certificate of Identification. If the determination is for a specific group, the National Maritime Center (NMC-4A) shall be consulted prior to issuing the temporary certificate.

2. Prefix "T".

The prefix "T" precedes the applicant's social security number (SSN) in the block for "MMD No.";

3. Temporary Certificate Of Identification.

The Temporary Certificate of Identification shall be valid for the term of the voyage or six months from issue date, whichever is longer. In special cases, the period of validity shall be established by the OCMI and the National Maritime Center (NMC-4A) advised of the term.

4. Impression Seal.

An impression seal shall be used to emboss parts of the mariner's signature and photograph.

5. Instructions For Filling Out Form CG-2838(T).

In cases where Temporary Certificate of Identification, Form CG-2838(T) are issued, the following instructions should be used:

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- a. The applicant shall execute an Application for Original, Supplemental, or Duplicate Merchant Mariner's Document, ensuring that all sections of the application are completed.
 - b. The applicant should ensure that the application indicates that a Temporary Certificate of Identification (TMMD) was issued, the reason for the TMMD, and the expiration date is shown in block #46.
 - c. A photograph shall be attached to the TMMD and to the application form. Extra photographs shall be returned to the mariner for later use.
 - d. The original application with the photograph shall be forwarded to the National Maritime Center (NMC-4A), and a copy shall be maintained at the REC.
- E. Application For Additional Endorsements.
1. Endorsements For Higher Ratings.
The new application form shall be filed when an applicant is applying for an unlicensed rating higher than the presently held rating and the higher rating requires presentation of evidence of qualifying service. All additional qualifying service shall be specified on the form. These transactions normally require a physical, drug test, and professional examinations. Reports of Physical Examination shall be forwarded with this form.
 2. Additional Qualified Member Of The Engineering Department (QMED) Or Unqualified Ratings.
Additional endorsements of MMDs for ratings not requiring qualifying experience, or for additional QMED ratings, shall be reported in Section VIII of the new application form, which is forwarded to the National Maritime Center (NMC-4A).
 3. Additional Endorsements Not Requiring Professional Examinations.
Documents with entry ratings which are surrendered for additional unqualified ratings not requiring professional examination shall be reissued and endorsed with the additional ratings upon filing of the application form.
 4. Affirmation Of Narcotics Involvement.
If the applicant affirms any narcotics convictions, other criminal or NDR convictions, a local evaluation of the applicant's eligibility shall be made to determine whether action under 46 U.S.C. 7704 is warranted. REC personnel should check the Coast Guard Wanted/Locator list to determine if the applicant appears on the list. If the applicant's name appears on the list, the local Investigating Officer should be contacted. An MMD shall not be issued until the applicant has provided satisfactory evidence that he or she is no longer involved with narcotics or any criminal activity. If a conviction has occurred since the document was issued, the evaluation shall follow the guidelines set forth for an original document, see section 3.A.

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F. Change Of Name.

If a mariner requests a new MMD due to a legal change of name, the mariner shall be required to submit a supplemental application, with a certified copy of the evidence of the new legal name, e.g., court order, certificate of marriage. The application should show the new name followed by the previous name in parentheses. The mariner shall then be issued an MMD showing the new legal name. If a "Z" or "Bk" number appears on the old document it shall be replaced with the applicant's SSN at that time. The application shall be forwarded to the National Maritime Center (NMC-4A); the old document shall be destroyed at the REC.

G. "Z" And "Book" Numbers.

"Z" and "Book" numbers were control numbers issued by Commandant (G-MVP-1) from 1937 until 1978. They required an authorization from G-MVP-1 for each MMD/CDB issued. In 1978, the Coast Guard began using the mariner's social security number as their identification. The mariner's social security number must appear on the MMD. No other identifying numbers such as "Z" or "Book" number shall appear on the MMD.

H. Requests For MMDs From Other Agencies.

To maintain necessary central records and administrative control, RECs receiving requests for issuance of MMDs for special official purposes shall refer them to the National Maritime Center (NMC-4A). Requesting agencies shall be advised to route such requests directly to the National Maritime Center (NMC-4A), stating the reason(s) for such requests. In cases where time concerns are pressing, telephone requests may be approved by the National Maritime Center (NMC-4A), with follow-up letters to be forwarded.

I. Issuance Of MMDs To Employees Of The National Oceanic And Atmospheric Administration (NOAA).

1. General.

Applications for MMDs endorsed in entry or qualified ratings may be accepted from NOAA employees. If the applicant is in all respects qualified for the endorsement requested, the approved document shall not be limited to NOAA vessels. However, if the applicant fails to meet the general requirements for the endorsement, service and examination requirements may be tailored to service aboard NOAA vessels. In such cases, the MMD issued shall be endorsed "Valid for use aboard NOAA vessels only." Except as modified by this subpart, all usual procedures shall be followed in issuing MMDs so restricted.

2. Evidence Of Service.

A letter from a NOAA vessel's commanding officer or a NOAA district officer shall be accepted as documentation of service. If the qualifying service for a QMED endorsement has been obtained aboard vessels of more than 100 gross tons (GT), and at least 75 percent of that time has been obtained aboard vessels in underway operations, the MMD should not be limited to NOAA vessels, if the applicant is qualified for an unrestricted document in all other respects.

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J. Permanent MMD, Form CG-2838.

All applicants may be issued a permanent MMD at the time of application without prior Headquarters approval. Applicants shall execute the application form generated by the Merchant Mariner Licensing and Documentation (MMLD) system. The issuing officer shall determine whether this application will suffice for permanent record purposes. The evidence of sea service presented shall be noted on the application and returned to the applicant. Upon issuance of the MMD, the applicant's complete record (along with the Form FD-258, and Form CG-2765 if the applicant is an alien) shall be forwarded to the National Maritime Center (NMC-4A). A copy of the application shall be retained by the issuing REC.

K. Duplicate, Mutilated, And Replacement Documents.

1. Duplicate Merchant Mariner's Documents.

a. Duplicate Document For Entry Rating.

If a merchant mariner's document (MMD) is lost and the mariner needs it for immediate employment and the National Maritime Center (NMC-4A) cannot verify by phone, a duplicate MMD may be issued on Form CG-2838(T), provided that an application form has been filed. A check should be made of the "Seamen Wanted" List and the local investigation department's wanted list.

b. Duplicate Document For Qualified Ratings.

Unless there is an immediate need for the MMD, the application shall be forwarded to the National Maritime Center (NMC-4A) for approval. If a mariner needs a duplicate MMD for immediate employment, REC personnel shall contact the National Maritime Center (NMC-4A) by phone for verification of ratings and duplicate number. Phone verifications shall be requested only if the need is important enough for the mariner to be in the office at the time of the request or to have made an appointment to appear within 24 hours of the request. The mariner should also be prepared to show an immediate need for the duplicate MMD. In cases of immediate need, if the National Maritime Center (NMC-4A) cannot verify the rating the same day of the request, shipping articles, payroll slips, or similar records indicating the ratings that the mariner worked may be used to verify the rating for the MMD. If satisfactory evidence cannot be obtained, the document must not be issued. Before issuing a duplicate MMD, the following actions shall be taken:

- (1) Check the Seaman's Locator/Wanted list.
- (2) Contact Commandant (G-MOA-2) for any pertinent information concerning affirmed suspensions, revocations, or voluntary surrender of an MMD before issuing the duplicate MMD.
- (3) Obtain satisfactory evidence of no further involvement with narcotics if use or addiction of narcotics is affirmed.
- (4) Issue MMD but initiate an investigation to determine if action under 46 U.S.C. 7704 is warranted when a narcotics conviction is affirmed.

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c. Application For Duplicate Documents.

(1) Use Of Application Form.

All applications for duplicates of MMDs, Continuous Discharge Books (CDBs), and certificates of discharge (records of service) shall be made in duplicate using an application form. The application shall be forwarded to the National Maritime Center (NMC-4A), which will provide the required information and return the application to the Regional Examination Center (REC) to issue the document.

(2) Preparation Of The Form.

All applicable items on the form shall be filled in before the form is accepted. The port (REC) shall be entered in block 1. The applicant's name must appear in full and the applicant's Social Security number (SSN), and the "Z" or "Bk" number, shall be included to aid identification. No application shall be accepted without a United States SSN. The name must be exactly the same as that under which the applicant was previously documented. [NOTE: Particular care should be taken that Hispanic applicants do not transpose their middle and last names.] The applicant's permanent address should be listed, rather than a temporary local one. Present or Previous MMD/License History shall include all MMD or license transactions, including a temporary MMD, which the mariner has had during his/her career as a merchant mariner. Section V, Request for Duplicate License, MMD, or CD, Block 37-39 shall have the license serial/MMD number, date of issue, and port (REC) of issue of the lost document. The time, manner and place of loss, and a summary of recovery efforts shall be shown in section V, block 42. The applicant must sign and date the application.

(3) Yes And No Questions.

All "yes" and "no" questions in section II, block 24 and section VI, must be answered and initialed by the mariner. The mariner shall be advised, either in written or verbal form, of the possible consequences of a false answer. When the document is issued section VI shall be completed indicating the expiration date, ratings issued, date and signature of the issuing official and port (REC) where issued.

(4) Photographs.

All applicants for duplicate MMDs or CDBs may apply in person at the REC or, if applying by mail, send in two photos of the type previously described. Photographs are then digitally reproduced and stored in the DDCS memory. The application is then forwarded to the National Maritime Center (NMC-4A) for approval. If the application is for a CDB or the applicant has requested that the duplicate MMD be issued at another REC, both photos shall be forwarded to the National Maritime Center (NMC-4A).

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(5) Collection Of Fees.

In case of the loss of an MMD or CDB by shipwreck or other marine casualty, the seaman shall be supplied a duplicate without cost as specified in 46 U.S.C. 7501(a). All discharge data available from Coast Guard records will be entered into the CDB. In all other instances of loss, the Coast Guard, under 46 U.S.C. 7501(b) and 10311(d)(2), may issue duplicate merchant mariner's documents, Certificates of Discharge and CDBs upon payment to the government of service charges for processing them. The fee currently prescribed for issuance of duplicate merchant mariner's documents and Certificates of Discharge, Form CG-718A, and CDBs by 46 CFR 12.02-18 shall be collected at the time of application.

d. Preparation Of Duplicate Documents.

(1) Identification Number.

All duplicate MMDs shall contain the applicant's SSN in lieu of any "Z" or "Bk" number previously assigned. No prefix should be attached to this number. Duplicates shall be given a suffix ("D1," "D2," etc.) after the SSN only in the space designated "Z or Bk Number."

(2) Questions Of Birth Or Citizenship.

Duplicate MMDs shall NOT be issued with question marks entered in the spaces for place of birth and citizenship. In cases of doubt, applicants must present the necessary evidence of citizenship to be issued a duplicate document. If an applicant presents evidence of an unsuccessful attempt to obtain a birth certificate, and cannot present evidence of citizenship in any of the forms prescribed in 46 CFR 10.02-5(c), the document shall indicate the place of birth and citizenship claimed by the applicant. If the date of birth cannot be proven, the REC shall issue the MMD with dashes inserted in that space; the applicant's claim shall not be accepted.

(3) Endorsements On Duplicate MMDs.

The endorsement on a duplicate MMD shall reflect current terminology. All superfluous ratings shall be eliminated unless the applicant requests otherwise (this request may be made orally).

e. Issuance Of Duplicate Merchant Mariner's Documents.

(1) By Mail.

Duplicate MMDs may be mailed to applicants at their request. Duplicate Certificates of discharge may be mailed via regular mail if no additional fee is to be collected.

(2) By Another REC.

When a duplicate MMD is requested to be issued at an REC other than the one at which the application was made, both copies of the application form shall be forwarded to the National Maritime Center (NMC-4A), with the required photograph(s). A notation shall be made on the application that the applicant desires the document be issued at a REC other than where the application is initiated. The NMC will return the application containing the information necessary for preparing the MMD to the REC requested to issue the document.

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(3) Reporting Requirements.

The original application for all duplicate MMDs and Certificates of Seamen's Service issued shall be returned to the National Maritime Center (NMC-4A) after entering the issuing information required in Section VI. If duplicate documents are mailed, the issue date shall be the date of mailing. The original application should not be sent to the National Maritime Center (NMC-4A) until the document is mailed or delivered to the applicant. The ratings, date of issue and signature of the issuing official shall be shown.

(4) Warnings Regarding Loss Of Documents.

When duplicate MMDs are issued, the holder shall be warned of the gravity of losing the original. The holder should also be informed that the lost document is no longer valid and should be returned to the Coast Guard if subsequently recovered.

(5) Recovery Of Lost Documents.

Documents that have been lost and subsequently turned in to the Coast Guard shall be held for 30 days. If not claimed in that time, they shall be destroyed and the National Maritime Center (NMC-4A) so advised by rapidraft or E-mail.

(6) Disposition Of Un-issued Duplicate Documents.

When duplicate MMDs, CDBs, and Certificates of Discharge are not issued within six months of preparation, attach the un-issued document to the original application and return them to the National Maritime Center (NMC-4A) with a notation that they were retained for six months at the REC and include the dates of attempts to contact the applicant to arrange for issuing documents.

2. Mutilated Documents.

a. Replacement By The OCMI.

If a mutilated MMD identifies the holder, all data is distinguishable and shows no evidence of alteration, a new MMD shall be prepared and delivered without charge (the replacement shall update all incorrect information). A record of this exchange shall be forwarded to the National Maritime Center (NMC-4A) on an application form. Sections I, II, VI, and VII shall be completed insuring ratings, date of issue and signature of the issuing official are included.

b. Data Unidentifiable Or Altered.

If the data on a mutilated MMD cannot be distinguished or the holder cannot be identified, the transaction shall be treated as a lost document, and the original shall be destroyed locally. If data on an MMD shows evidence of alteration, the investigations office should be contacted and appropriate actions taken.

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3. Replacements For Other Transactions.
When a mutilated MMD is surrendered for an additional endorsement, change of name, etc., the transaction should be completed as appropriate and the surrendered document destroyed locally. A notation shall be made on the application that the old document has been locally destroyed.
- L. Continuous Discharge Books (CDBs).
1. Issuance Of CDBs.
With certain exceptions, all merchant mariners sailing on vessels of over 100 gross tons for foreign voyages and 75 gross tons for coastwise voyages must be issued a Merchant Mariner's Document. If an applicant insists on receiving an original CDB, an application shall be completed with the appropriate box checked. The REC will prepare and issue the CDB in the same manner as a MMD.
 2. Exchange Of CDBs For MMDs.
An applicant seeking to exchange a CDB for an MMD (Form CG-2838) may do so at any time. All MMDs shall bear the applicant's SSN, instead of any "Z" or "Bk" number previously held. A report of such an exchange shall be made to the National Maritime Center (NMC-4A) on an application form; a notation will be made on the application that the applicant held a prior document bearing a "Z" or "Book" number. The CDB shall be returned to the mariner as a record of service.
 3. Continuation Of CDB.
A mariner possessing a CDB in which all but three or fewer spaces are used may submit the new application form for a continuation book. The appropriate portions of this form will be executed and the original forwarded to the National Maritime Center (NMC-4A). A continuation of the CDB, showing the mariner's SSN, will be issued by the REC without charge.
- M. Merchant Mariner's Document (MMD) Forms.
1. Preparation Of Documents.
MMDs are now prepared with the computerized DDCS system using form CG-2838. If an item called for on the MMD form is not applicable, N/A, or NONE should be entered in the space.
 - a. Name.
The MMD shall be issued according to the name shown on the application which must be the legal name shown on a birth certificate, court order, or marriage license.
 - b. Social Security Number (SSN).
The applicant's SSN shall appear in the space for "SSN" on the front of the MMD. All original, supplemental, renewal, and duplicate documents shall bear the SSN. An MMD shall not be issued until a Social Security card, receipt of Social Security card, or a signed document from Social Security Administration showing application for duplicate Social Security number has been shown to the REC personnel.
 - c. Place Of Birth.
If native-born, enter the state in which the applicant was born. If not native born, enter country of birth.

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- d. Citizenship.
Enter the name of the country of which the applicant is a citizen. Acceptable evidence of citizenship must be shown before the document is issued. For nonresident aliens, the notation "NRA" must be placed immediately following this notation. If a determination of citizenship cannot be made, contact the local Immigration and Naturalization Service (INS) for assistance. If INS is unable to make a determination, the citizenship block should read "NON-US" or "NON-US-NRA" (NRA = Non Resident Alien).
- e. Address.
The permanent address shown on the application shall be used.
- f. Signature.
Applicants shall sign their full first name, middle initial, and last name, and any suffix such as Jr., III, in ink.
- g. Complexion.
The applicant's complexion shall be stated as recorded on the application (see section C.2.d of this chapter).
- h. Issued By.
Enter the REC issuing the document.
- i. Location Of Expiration Date.
The expiration date shall be placed on the face of the MMD, beneath the mariner's picture and on the back of the MMD beneath the thumb print.
- j. Signature Of Issuing Official.
The issuing official shall sign directly above the line labeled "Examiner" being careful not to obscure the endorsements. "By direction of OCMI" appears beneath the name of the "Examiner".
- k. Endorsements.
The rating endorsement(s) for which the applicant is qualified shall appear on the reverse of the permanent document beneath the physical description data line. Endorsements must clearly state the qualifications of the holder.
- (1) Entry Ratings.
All MMDs issued for entry ratings shall be endorsed for Ordinary Seaman, Wiper, and Steward's Department (FH). No other entry rating endorsement shall be issued, except as provided in section 15.M.1.k.(4)(a) and (b) below. All entry ratings shall be endorsed on an MMD except when a higher rating for a department is warranted by service and testing. A physical is no longer required for food handlers.

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(2) Ratings In Several Departments.

If an MMD applicant is qualified to serve in more than one department, the ratings for which the applicant is qualified in each department will be endorsed separately. For example, a fireman/watertender who is also qualified as a lifeboatman and in the Steward's Department (FH) will have the MMD endorsed, "Fireman/Watertender, Lifeboatman, Ordinary Seaman, Steward's Department (FH)." QMED will be used only when the applicant is qualified for all QMED ratings.

(3) Endorsements For Licensed Or Staff Officers.

An MMD issued to a licensed officer or staff officer shall be endorsed with entry ratings and in accordance with 46 CFR 12.02-11.

(4) Marine Training Program Endorsements.

Special endorsements shall be issued to students engaged in training programs that include an institution-sponsored sea period. Students at institutions that do not provide a sponsored sea period, and where the students must seek employment on their own, entry-level endorsements shall be issued. Should doubt arise as to a specific endorsement, the approval letter for the particular institution should be consulted. Cadet (Deck) or Cadet (Engine) endorsement(s) shall be issued, in accordance with 46 CFR 12.25-25, to cadets enrolled at the U.S. Merchant Marine Academy; those cadets involved in the Dual Licensing Program shall receive both endorsements. Cadets at state academies generally do not require MMDs, as their sea training is normally conducted on state operated training ships. Should issuance of MMDs to such cadets become desirable or necessary, the foregoing endorsements (as appropriate) shall be used.

(a) "Student Observer-Any Department" endorsements shall be issued, in accordance with 46 CFR 12.25-30, to students enrolled in programs dealing with marine management, operations, naval architecture, oceanography, and similar subjects.

(b) Apprentice mate or engineer endorsements shall be issued, in accordance with 46 CFR 12.25-35 and -40, to students enrolled in approved training programs, other than at federal or state academies, that lead to issuance of deck or engineer licenses.

N. Surrender Of Merchant Mariner's Documents By Retiring Merchant Mariners.

Several maritime labor organizations require pension applicants to surrender their merchant mariner's document as a condition for receiving benefits. This practice is precluded by 46 U.S.C. 7303 which requires each document be retained by the mariner to whom it is issued. However, in an effort to assist mariners in obtaining their entitlements while preventing any violation of law, the REC should accept the document for deposit. A receipt on letterhead, or a locally approved form, should be given to the mariner. The mariner should be advised that upon request the document will be returned only to the mariner with or without receipt. The document may be held locally or sent to the National Maritime Center (NMC-4A) with a copy of the receipt to be filed in the mariner's official record.

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PART A: MARINER CREDENTIALING**CHAPTER 16: QUALIFIED RATINGS FOR MERCHANT MARINER'S DOCUMENTS****A. Introduction.**

To provide a reasonable degree of safety in the operation of a vessel, certain members of the crew must be qualified to steer the vessel, maintain an efficient lookout, handle the lifeboats, operate the main propulsion plant and necessary auxiliaries, etc. The pertinent statutes are as follows:

- | | | |
|----|------------------------------|--|
| 1 | 46 U.S.C. 7306 through 7311a | Able seaman (AB); |
| 2 | 46 U.S.C. 7313 and 7314 | Qualified member of the engineering department (QMED); |
| 3. | 46 U.S.C. 7316 | Lifeboatman; and |
| 4. | 46 U.S.C. 7317 | Tankerman. |

B. Physical Examinations For Qualified Ratings.

Form CG-719K, Merchant Marine Personnel Physical Examination Form, shall be used when applicants for AB, tankerman, or QMED ratings receive physical examinations. The results of the examination and any approved waivers shall be forwarded to Headquarters along with the form CG-719B.

C. Able Seaman (AB) Ratings.**1. Able Seaman Endorsements.**

Only the following endorsements for an AB should be entered on merchant mariner's documents (MMDs):

- a. Able Seaman-Unlimited;
- b. Able Seaman-Limited;
- c. Able Seaman-Special;
- d. Able Seaman-Offshore Supply Vessels;
- e. Able Seaman-Fishing Industry;
- f. Able Seaman-Sail; and
- g. Able Seaman-Mobile Offshore Units.

See 46 CFR 12.05-7(c) and (d) for conversion of prior endorsements to those indicated above.

PART A: MARINER CREDENTIALING**CHAPTER 16: QUALIFIED RATINGS FOR MERCHANT MARINER'S DOCUMENTS**2. Minimum Service.

An applicant needs the following minimum service to qualify for the various categories of able seaman:

- a. Able Seaman-Unlimited. Three years service on deck of vessels operating on the oceans or the Great Lakes;
- b. Able Seaman-Limited. Eighteen months service on deck of vessels of 100 gross tons or over which operate on the oceans, Great Lakes, or navigable waters of the United States;
- c. Able Seaman-Special. Twelve months service on deck on vessels operating on the oceans, Great Lakes or the navigable waters of the United States;
- d. Able Seaman-OSV. Six months service on deck on vessels operating on the oceans, Great Lakes, or the navigable waters of the United States.

3. Character Of Qualifying Service.a. Background.

The sea service requirements for the able seaman ratings are set forth in 46 U.S.C. 7307 through 7311a. The source statute as recodified in 1983 was 46 U.S.C. 672. Originally, that statute provided for three types of able seaman ratings. The service required for what are now AB-Unlimited and AB-Limited had to be on vessels of 100 gross tons or more. In 1980, Congress modified the statute to, among other things, provide an orderly ladder of advancement based on experience levels. It created the current AB ratings and specified the required sea service to qualify for each. It eliminated the minimum vessel size requirement for qualifying sea service toward AB-Unlimited. It specified that the service must be service on deck and it defined "service on deck."

b. Service On Deck.

Qualifying service for all able seaman ratings except Able Seaman-MOU must be service on deck. Under 46 U.S.C. 7301, service on deck is "service in the deck department in work related to the work usually performed on board vessels by able seamen and may include service on fishing, fish processing, fish tender vessels and on public vessels of the United States." The intent of this requirement is to advance individuals to the rating of AB based on their familiarity with the various duties and tasks performed under that rating. The applicant's experience shall be reviewed to ensure that the basic experience is within these statutory guidelines. Although there is no minimum vessel size specified, evaluators should keep in mind the duties of an able seaman when evaluating sea service to determine if it can be considered "service on deck." [NOTE: Pub.L. 101-595, Title VI, 602(e)(3), Nov. 16, 1990, noted under 46 U.S.C. 7306, requires that any service that was used to qualify for Able Seaman-

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Fishing Industry shall be accepted for Able Seaman-Special or Unlimited. For Able Seaman-Limited, that service shall be accepted provided it was on board vessels of at least 100 gross tons.]

4. Service As A Maintenance-Person.

Time served in the maintenance department of a vessel, where a maintenance department is allowed by the vessel's COI, is considered 50% deck service and 50% engine service, unless the certificate of discharge specifies otherwise. The portion of service on deck may be credited toward required service for AB.

5. Qualifying Service On Mobile Offshore Units.

Experience in the deck department of a mobile offshore unit (MOU) is creditable toward able seaman endorsements even if the rig is temporarily bottom bearing. The following are considered deck department positions: roustabouts, roughneck, tool pusher, rig superintendent, driller, derrickman, and crane operator. In some cases a barge engineer on a moveable rig is part of the deck department. Companies must be contacted and a letter provided verifying the applicant's deck department service in each case. Welders are not part of the deck department and their service is not qualifying for AB.

6. Qualifying Service On Fixed Platforms.

Experience gained on fixed structures may substitute for up to one third of the service requirement for any able seaman rating provided that:

- a. The structure is equipped with Coast Guard approved lifeboats/survival capsules;
- b. The applicant shows evidence of having been trained in the use and maintenance of that equipment; and
- c. All regular drills are held on the structure as evidenced in the company log.

7. Examinations.

Applicants for an AB-OSV endorsement must be examined with the proper examination for that endorsement. Previous policy allowing applicants to test with the AB-Unlimited examination, then qualify as lifeboatman and present only sea service for the AB-Unlimited endorsement, is canceled. The nature of the examinations are different because the AB-OSV exam includes numerous questions on lifesaving not included in the AB-Unlimited exam. Previous applicants for AB-OSV who passed the AB-Unlimited exam may receive the AB Special, Limited or Unlimited endorsement until March 25, 2000 in accordance with the policy in effect at the time of testing. RECs should give this new policy widespread publicity.

8. Able Seaman-Fishing Industry.

An individual may be rated as Able Seaman-Fishing Industry if the individual has at least 6 months service on deck on board vessels operating on the oceans or the navigable waters of the United States (including the Great Lakes). The endorsement Able Seaman-Fishing Industry permits the holder to serve as AB only on fish processing vessels.

PART A: MARINER CREDENTIALING**CHAPTER 16: QUALIFIED RATINGS FOR MERCHANT MARINER'S DOCUMENTS**9. Able Seaman-Sail.

An individual may be rated as Able Seaman-Sail if the individual has at least 6 months service on deck on sailing school vessels, oceanographic research vessels powered primarily by sail, or equivalent sailing vessels operating on the oceans or navigable waters of the United States (including the Great Lakes). The endorsement permits the holder to serve as AB only on sailing school vessels.

10. Able Seaman-MOU.

The regulations do not specify an endorsement as Able Seaman-MOU, but the Coast Guard instituted the endorsement in response to industry needs. Mobile offshore units (MOUs) include non-self-propelled and self-propelled mobile offshore units while under tow or at the exploration or exploitation site operating exclusively in mineral and oil exploration and exploitation. This includes drilling, accommodation, construction, maintenance, pipelaying and firefighting vessels. It does not include supply and towing vessels. The general requirements of 46 CFR 12.01 and 12.02 apply.

a. General Requirements For Able Seaman-MOU.

Applicants must be at least eighteen years of age, speak and understand the English language as required to perform able seaman and emergency duties, and meet the same physical standards that apply to the other able seaman endorsements. Able Seaman-MOU may only serve as AB on mobile offshore units.

b. Service Requirements For Able Seaman-MOU.

Applicants must have twelve months service (360 eight-hour days) on vessels of at least 65 feet or more on ocean, coastwise or inland routes. A U.S. Coast Guard approved training program may substitute for up to one third of the service. Such a course should include realistic survival craft and survival equipment training.

c. Examination(s) For Able Seaman-MOU.

Applicants must pass the examination for Able Seaman-MOU. Applicants must also complete the practical and written examination for either lifeboatman or lifeboatman-MOU prior to obtaining an Able Seaman-MOU endorsement.

11. Ratings As Boatswain, Etc.

The provisions of 46 CFR 12.05-11 automatically provide that the holder of an MMD endorsed as AB need not obtain an additional endorsement to serve as any unlicensed rating such as boatswain (the leading seaman and immediate supervisor of unlicensed deck personnel who supervises the maintenance of deck gear), etc. The rating of boatswain may be issued to an applicant who qualifies for the rating of AB in both experience and professional knowledge, but has defective vision or color blindness. [NOTE: Such a rating should only be issued if the applicant has at least 3 years of qualifying service and passes the required professional examination].

PART A: MARINER CREDENTIALING**CHAPTER 16: QUALIFIED RATINGS FOR MERCHANT MARINER'S DOCUMENTS**12. Able Seaman Endorsements For Licensed Deck Officers.

When deck officers qualify for an endorsement as able seaman they will be tested as follows:

License Held	AB Written	LB Written	AB Practical	LB Practical
Master/Mate 0 - 1600 GT	X	X	X	X
Master/Mate Any GT	None	None	None	X
Pilot	X	X	X	X
Operator	X	X	X	X

13. Service By Able Seaman - OSV.

46 U.S.C. 7310 is not specific as to the type of vessels that may employ an Able Seaman-OSV. It only says the vessels must be less than 500 gross tons and support exploration, exploitation or production of offshore mineral or energy resources. Therefore, an Able Seaman-OSV may be employed aboard any such vessel, including an uninspected towing vessel, involved in this industry.

D. Lifeboatman Rating.1. Qualification Requirements.

In order to qualify for the endorsement of lifeboatman, the applicant must produce documentary evidence of at least one of the requirements stated in 46 CFR 12.10-3. No certificate of efficiency as lifeboatman is required of any person employed on any unrigged vessel, except on a seagoing barge and on a tank barge navigating waters other than rivers and/or canals. For the purpose of this section, an unrigged vessel is a barge which is not self-propelled.

2. Practical Demonstration Of Skills.

In accordance with 46 CFR 12.10-5, candidates must successfully complete the written part of the examination and demonstrate their ability to serve as lifeboatman. Chapter 5 contains guidance on administering the practical examination.

3. Able Seaman Ratings That Include Lifeboatman Certification.

MMDs endorsed as able seaman (either unlimited, limited or special) need not carry a separate lifeboatman endorsement since these able seaman endorsements include certification as lifeboatman. However, mariner's that qualify for the lifeboatman endorsement should carry it on their MMD if they hold Able Seaman OSV, Sail or Fishing Industry since those ratings do not include certification as lifeboatman. They do include certification as lifeboatman limited to vessels to which the able seaman endorsement applies. [EXAMPLES: AB-OSV is a lifeboatman on OSVs; AB-Fishing Industry is a lifeboatman on fish processing vessels.]

E. Lifeboatman-MOU Rating.

This endorsement no longer exists. See Able Seaman-MOU on page 4 of this chapter for clarification.

PART A: MARINER CREDENTIALING**CHAPTER 16: QUALIFIED RATINGS FOR MERCHANT MARINER'S DOCUMENTS****F. QMED Ratings.**

A qualified member of the engine department is any person who holds an engine department rating issued by the U.S. Coast Guard that is below licensed officer and above wiper.

1. Sea Service.

An applicant for an MMD endorsed as a QMED rating must have a minimum of six months of underway service in a rating at least equal to that of wiper. This service may have been aboard government or military vessels or other vessels not required to carry certificated personnel. OCMI's shall evaluate such service to ensure that it is the equivalent of service as a wiper. The presence of a "walk in" engine room, generators independent of the main engines and other independent auxiliaries indicates that a vessel's construction may require a crew member performing a wiper's duties.

2. Service As A Maintenance Person.

Time served in the maintenance department of a vessel, where a maintenance department is allowed by the vessel's COI, is considered 50% deck service and 50% engine service, unless the certificate of discharge specifies otherwise. The portion of service in the engine department may be credited toward the service required for a QMED rating.

3. Endorsement Of QMED Ratings.

All QMED ratings shall be endorsed separately. When a mariner has met the requirements for all QMED ratings, the document shall be endorsed "QMED-Any rating." The holder of a merchant mariner's document endorsed with one or more qualified member of the engine department ratings may serve in any unqualified rating in the engine department without specific endorsement.

4. Applicants Examined For Other Ratings At The Same Time.

An applicant for one QMED rating may be examined at the same time for all ratings for which eligible. An applicant being examined for one of the QMED ratings who has previously completed the QMED-General section within the past 12 months is not required to be tested on this section again.

5. Endorsement For Designated Duty Engineers (DDEs).

Under 46 CFR 12.02-11(d)(2), Designated Duty Engineers of 4000 horsepower and unlimited horsepower qualify to have their MMDs endorsed as "Any unlicensed rating in the engine department." Designated Duty Engineers of 1000 horsepower do not qualify.

G. Tankerman Ratings.

See Chapter 17

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To Be Developed.

**PART B: VESSEL MANNING
FOREWORD**

The administration of safe manning for regulated U.S. vessels is the distinct responsibility of the U.S. Coast Guard. Internationally, the Administration's responsibility is rooted in the International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended, Chapter V Regulation 14 (see IMO Resolution MSC.325(90)). An inherent function of the Officer in Charge, Marine Inspection (OCMI) is to establish the minimum number of mariners required, including the qualifications and conditions of service, for the safe operation of inspected and certain uninspected vessels. Accordingly, verification for compliance with those terms and conditions, as well as with applicable statutes for all commercial vessels, is a primary duty of the Marine Inspector.

In carrying out this charge, a host of elements and variables require due consideration and coordination with the vessel owner/operator, including the broad application of domestic regulations, international standards, watchkeeping provisions, vessel particulars, and operational factors. With a view of maintaining national consistency, the information in this Part (B) [legacy Chapters 20-26] has been reformatted and structured to interlink various elements affecting the safe manning and watchkeeping on U.S. vessels and should be referenced comprehensively.

Chapter B1 contains policy and guidance for uniform application of the statutes and regulations that relate to the manning of inspected and uninspected vessels. This material should be used to determine and verify compliance with the minimum safe manning levels, in conjunction with the applicable manning laws, regulations, and official directives. Chapter B2 provides sample manning scales for both general and specific classes of inspected vessels and is intended to help explain the various statutes, regulations, court decisions, and practices associated with minimum manning requirements. Chapter B3 provides supplementary policy and guidance on the manning requirements for credentialed officers, as well as a detailed discussion on the impact of various international standards. Chapter B4 contains supplemental policy and guidance on the impact of laws and international treaties related to the assignment of seamen, credentialed ratings, and non-credentialed crew. Chapter B5 outlines various watchstanding requirements and shipboard working conditions relevant to U.S. vessels. Chapter B6 discusses the acceptance of automated systems to replace specific personnel or to reduce overall crew requirements. Chapter B7 discusses the statutes and regulations that apply to various uninspected vessels, including certain yachts.

NOTE: Unless specified otherwise, the term "credential" used throughout Part B, Chapters 1-7, of this Volume includes legacy merchant mariner licenses (MML), merchant mariner documents (MMD), certificates of registry (COR), and STCW certificates which ceased to be valid after April 9, 2014. For the purposes of these Chapters the terms credentialed master, mate, engineer, and operator mean an officer endorsement as prescribed in 46 CFR Part 11. Unless expressly stated otherwise, the terms rating and crewmember pertain to endorsements as prescribed in 46 CFR Part 12. In general, the term "unlicensed" used throughout Part B refers to ratings and crewmembers, including non-credentialed crew (not otherwise subject to 46 U.S.C. 8701) in some cases. See the Annex for samples of merchant mariner credentials. (2014)

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PART B: VESSEL MANNING

**CHAPTER 1: GENERAL PROVISIONS
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PART B: VESSEL MANNING**CHAPTER 1: GENERAL PROVISIONS FOR VESSEL MANNING****A. Introduction. (2014)**

Part B, Chapters 1-7 (legacy Chapters 20-26), has been structured to interlink various elements affecting the safe manning and watchkeeping on U.S. vessels and should be referenced comprehensively. This Chapter contains guidance for correct, uniform application of the statutes and regulations that relate to the manning of inspected and uninspected vessels. This material is used by Coast Guard marine safety personnel to determine and verify compliance with the minimum safe manning levels, in conjunction with the applicable manning laws, regulations, and official directives. Chapter B2 is intended to assist in the translation of the various statutes, regulations, court decisions, and practices into minimum manning requirements by presenting sample manning scales for both general and specific classes of inspected vessels. Chapter B3 provides supplementary policy and guidance on the manning requirements for credentialed officers, as well as a detailed discussion on the impact of various international standards. Similarly, Chapter B4 contains supplemental policy and guidance on the impact of laws and international treaties, which may imply or indirectly require the assignment of seamen, credentialed ratings, and non-credentialed crew. Chapter B5 outlines various watchstanding requirements and shipboard working conditions relevant to U.S. vessels. Chapter B6 discusses the acceptance of automated systems to replace specific personnel or to reduce overall crew requirements. Chapter B7 discusses the statutes and regulations that apply to various uninspected vessels, including certain yachts.

B. Authority.**1. Statutes And Implementing Regulations. (2014, 2017)**

- a. Division of crew into watches: 46 U.S.C. 8104; 46 CFR 15.705.
- b. Work hours and rest periods: 46 U.S.C. 8104; 46 CFR 15.1111; 46 CFR 15.710.
- c. Able seamen: 46 U.S.C. 7306-7312 and 8702; 46 CFR 15.1103; 46 CFR 15.840.
- d. Lifeboatmen: 46 U.S.C. 7316 and 8101; 46 CFR 15.845 and 199.100.
- e. Mates: 46 U.S.C. 7102 and 8301; 46 CFR 15.1103; 46 CFR 15.810.
- f. Masters: 46 U.S.C. 7102 and 8301; 46 CFR 15.1103; 46 CFR 15.805.
- g. Radar observers: 46 CFR 15.815.
- h. Chief engineers: 46 U.S.C. 7102 and 8101; 46 CFR 15.1103; 46 CFR 15.820.
- i. Engineers: 46 U.S.C. 7102, 8101 and 8301; 46 CFR 15.1103; 46 CFR 15.825.
- j. Pilots: 46 U.S.C. 7101, 8101 and 8502; 46 CFR 15.812.
- k. Lookouts: 46 CFR 15.850.
- l. Fire patrolmen and cabin watchmen: 46 U.S.C. 8102; 46 CFR 15.855 and 78.30.
- m. Radio officer/radiotelegraph operator watches: 46 U.S.C. 7101-7103, 7318 and 8101; 46 CFR 15.1103; 46 CFR 15.830.
- n. GMDSS Operator(s) and GMDSS Maintenance: 46 CFR 15.817; 47 CFR 80.1073 and 80.1074.
- o. Tankermen: 46 U.S.C. 3703, 7317, 8703, 9101 and 9102; 33 CFR 155.710; 46 CFR 31.15 and 15.860.

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- p. Operators: 46 U.S.C. 8104(h), 8903 and 8904; 46 CFR 15.535, 15.601, 15.605, 15.610 and 15.705.
- q. Staff officers: 46 U.S.C. 7101, 7102 and 8302; 46 CFR 15.835.
- r. Qualified members of the engineering department (QMEDs): 46 U.S.C. 7313 and 7314; 46 CFR 15.1103.
- s. Ordinary seamen: 46 U.S.C. 8702; 46 CFR 12.25-10 and 15.840.
- t. Crew citizenship: 46 U.S.C. 8103 and 12131; 46 CFR 15.720.

The manning regulations previously in 46 CFR Part 157 (1986 edition), were revised to reflect technological developments, the recodification of Title 46, United States Code (USC), and changes in terminology associated with merchant vessel manning. The former Part 157 was also relocated to Part 15 for convenience. (52 FR 38614, October 16, 1987). The Secretary of the Department of Homeland Security (Secretary) has authorized the Commandant to perform the functions required of the Secretary by these laws. This authority has been further delegated in Part 1 of Titles 33 and 46, Code of Federal Regulations (CFR), this manual, and instructions issued to marine safety personnel.

2. General Manning Authority. (2014)

The general regulations for manning of vessels are contained in 46 CFR 15 (Subchapter B, Merchant Marine Officers and Seamen). Requirements concerning certificated lifeboatmen, fire patrolmen, and other vessel specific manning standards are detailed in the parts of the regulations dealing with the inspection of that particular type of vessel. The general manning and crewing requirements for vessels and facilities operating on the U.S. Outer Continental Shelf are contained in Part 141 of Title 33 (Subchapter N, Outer Continental Shelf Activities).

3. State Manning Requirements. (2017)

Under the federalism principles articulated by the Supreme Court of the United States in the consolidated cases of *United States v. Locke and Intertanko v. Locke*, 529 U.S. 89, 120 S.Ct. 1135 (March 6, 2000), States generally cannot regulate vessel personnel qualification or manning requirements. One exception, however, is that States may establish pilotage requirements in the bays, rivers, harbors, and ports of the United States unless the law specifies otherwise (see Section B3.D). Ultimately, federalism is a question of constitutional law that cannot be conclusively answered by the OCMI, and your district legal office should be notified of instances, if any, of such State regulation. Contact your district legal office with any questions. When in doubt, vessel operators should independently check State law.

NOTE: While an individual State of the United States may issue a “certificate of number” (aka Boat Registration Certificate) to an appropriate vessel (33 CFR Part 173), in no such case may a State issue or endorse a Certificate of Inspection, Safe Manning Document or any international statutory certificate. Only U.S. federal agencies are granted the authority to act as the Flag Administration for international conventions and instruments. (2017)

PART B: VESSEL MANNING**CHAPTER 1: GENERAL PROVISIONS FOR VESSEL MANNING****C. Responsibility Of The Officer In Charge, Marine Inspection (OCMI). (2014, 2017)**

Under 33 CFR 1.01-20, the OCMI is responsible for the enforcement of vessel inspection, navigation, and seamen's laws within a specific zone. In this capacity, the OCMI is responsible for establishing manning levels for various types of vessels. The Certificate of Inspection (COI), Form CG-841, states the minimum number of credentialed officers and crewmembers necessary for the safe operation of inspected vessels, as required by 46 U.S.C. 8101 and 46 CFR 15.501. Also, many uninspected U.S. merchant vessels are subject to the manning requirements of 46 U.S.C. 8103, 8104, 8304, 8701-8703, 8903 and 8904. The International Convention for the Safety of Life at Sea (SOLAS), Chapter V, Regulation 14 requires each vessel to which SOLAS Chapter I applies to be issued a "Safe Manning Document." Refer to Chapter B3 for a more detailed discussion on Safe Manning Documents for inspected and uninspected vessels. The watch system is not required to be stated on the COI.

NOTE: Reference MSM Volume II, Section B.1.D.1.h. for information on trial trips/sea trials. Minimum manning levels should be agreed to and verified by the OCMI in advance. (2017)

1. In establishing the safe manning level for a certificated vessel, the OCMI should consider the following factors, in addition to statutory and regulatory requirements:
 - a. Size of the vessel;
 - b. Route;
 - c. Hull and equipment maintenance needs (protective coatings, cargo gear, equipment sophistication, etc.);
 - d. Type and horsepower of propulsion machinery;
 - e. Maintenance of machinery and equipment;
 - f. Degree of automation of deck and engineroom equipment;
 - g. Type of cargo;
 - h. Cargo transfer system;
 - i. Fire protection systems (crew operational requirements)
 - j. General arrangement of vessel equipment as it relates to crew operational requirements;
 - k. Lifesaving equipment
 - l. Level of qualification of each crew position to perform tasks demanded by the vessel's Mission;
 - m. Number of passengers carried;
 - n. Hazards peculiar to route and service;
 - o. Hours of operation within a 24-hour period;
 - p. Successful operation of similar vessels;
 - q. Reasonable work/rest hour limits;
 - r. The existing safety record of the vessel; and
 - s. International Maritime Organization guidelines (IMO Resolution A.1047(27), entitled "Principles of Minimum Safe Manning") and other international standards, as applicable (See paragraph C.2. below).

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2. In addition to the factors above, for vessels on international voyages, the OCMI should take proper account of existing international (IMO, ILO, ITU, and WHO) instruments in force and any applicable coastal state agreements (i.e. MOU/MOA) which deal with:
 - a. Watchkeeping;
 - b. Hours of work or rest;
 - c. Safety Management;
 - d. Certification of seafarers;
 - e. Training of seafarers;
 - f. Occupational safety, health, and hygiene;
 - g. Crew accommodations and food;
 - h. Security; and
 - i. Radio communications.

The international instruments pertaining to these factors are discussed in greater detail throughout Part B, Chapters 1-7, of this Volume.

D. Determining Minimum Manning (Manning Proposal). (2014, 2017)

In establishing minimum manning required for safe operation, in addition to mandated levels of manning for safe navigation, the OCMI should also consider other vessel operations, such as cargo handling, emergency evolutions, and preventive maintenance. The sample manning scales in Chapters B2 and B7 have been provided as guidance. The OCMI is not compelled to assign manning levels according to the sample scales presented, as they are neither mandatory, nor all inclusive. To supplement a manning request or when alternatives to the sample manning scales are sought, the cognizant OCMI should request the company responsible for the operation of the vessel to prepare and submit its proposal for the minimum safe manning of that vessel. The company should;

NOTE: In preparing a proposal for the minimum safe manning of a vessel on an international voyage, the company should apply the principles, recommendations and guidelines contained in IMO Assembly Resolution A.1047(27). (2014)

1. Make an assessment of the tasks, duties and responsibilities of the vessel's complement required for its safe operation, security, protection of the marine environment, and for dealing with emergency situations. For vessels equipped with Dynamic Positioning Systems (DPS), and/or other specialized operating systems, the proposal should include any particular manning requirements as specified in the applicable operating manual;
2. Ensure that fitness-for-duty provisions and work/rest hour requirements are considered;
3. For seagoing vessels subject to STCW, make an assessment of numbers and grades/capacities in the vessel's complement required for its safe operation, security, protection of the marine environment, and for dealing with emergency situations. The

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Manning and STCW Certification Reference Tables in Chapter B2 provide guidance on the numbers of credentialed deck and engineer officers appropriate for different sizes of vessels (tonnage), trading areas, and aggregate propulsion power;

4. Prepare and submit to the cognizant OCMI a proposal for the minimum safe manning based upon the above assessment. The proposal should include how the vessel's complement will deal with emergency situations, including the evacuation of passengers, where necessary. Owners/operators are encouraged to prepare and submit completed sample tables of duties and rest logs to conceptually facilitate the OCMI's evaluation of the manning proposal. In many cases these samples can be modeled after similarly operated U.S. flagged vessels within a company's management;
5. Ensure that the proposed minimum safe manning is adequate at all times and in all respects, including meeting peak workload situations, conditions and requirements, and for vessels on international voyages, is in accordance with the principles, recommendations and guidelines contained in IMO Assembly Resolution A.1047(27); and
6. Prepare and submit to the cognizant OCMI a new proposal for the minimum safe manning of a vessel in the case of changes in trading area(s), construction, machinery, equipment, operation and maintenance or management of the vessel, which may affect the safe manning. Title 46 CFR 15.505 requires that all requests for changes in manning as indicated on the COI, Safe Manning Document (SMD), or Safe Manning Letter (SML) must be made to the OCMI who last issued the COI or SMD/SML, unless the request is made in conjunction with an inspection for certification, in which case the request should be addressed to the OCMI conducting the inspection. Refer to the Minimum Safe Manning Proposal (Template) in the Annex.

E. Proposal Evaluation. (2014, 2017)

1. The OCMI should evaluate a company's proposal for minimum safe manning and ensure that:
 - a. The proposed vessel's complement contains the number and grades/capacities of personnel to fulfill the tasks, duties and responsibilities required for the safe operation of the vessel, for its security, protection of the marine environment, and for dealing with emergency situations; and
 - b. The master, officers and other members of the vessel's complement are not required to work more hours than is safe in relation to the performance of their duties and the safety of the vessel, and that the requirements for work and rest hours, in accordance with applicable international and national regulations, can be complied with.

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2. If the company's proposal is determined to be insufficient, the OCMI should respond providing justification and outline manning levels that are considered acceptable. This may include requesting an amended minimum safe manning proposal.
3. The OCMI should only approve a proposal for the minimum safe manning of a vessel and issue a COI or SMD/SML if he/she is fully satisfied that the proposed vessel's complement is established in accordance with the principles, recommendations and guidelines contained herein, and is adequate in all respects for the safe operation and security of the vessel and for the protection of the marine environment. The established manning level must not be less than the minimums stipulated by law or regulation. The proposal and resulting determination should be thoroughly documented in MISLE.
4. Unless expressly provided for under law or regulation, the OCMI should consider the circumstances very carefully before allowing a COI or SMD/SML to contain provisions for less than three qualified officers in charge of a navigational watch, while taking into account all the principles for establishing safe manning as applicable. See Chapters B2, B5, and B7 for additional information on vessels permitted to maintain a two-watch system. Refer to the MMS Work Instruction in the Annex.

F. U.S. Coast Guard Oversight. (2014, 2017)

During inspection activities, Coast Guard personnel shall verify compliance with the manning level specified on the COI, or SMD/SML, as well as with any other applicable manning regulations. This should include a review of credentials and the crew list to ensure authenticity, validity, and service within any endorsement restrictions. Coast Guard personnel should be mindful that an MMC authorizes the holder to serve in any capacity endorsed thereon, or in any lower capacity in the same department, or in any capacity covered by a general endorsement with respect to grade, propulsion mode, propulsion power, tonnage, route, and special limitations/waivers. Evidence that the vessel or its crew does not correspond with the relevant requirements or that the vessel is otherwise being operated in such a manner as to pose a danger to persons, property or the environment may lead to clear grounds for a more detailed/expanded inspection and/or audit of the safety management system (if applicable). See paragraph K.3 of this Chapter as well as Chapter B5 of this Manual for additional information. Refer to the Safe Manning Verification Check-sheet in the Annex.

NOTE: MMCs can be verified in MISLE under the Parties tab by selecting System: MMLD or online using the MMC Verification Tool. (2017)

1. Examples of Clear Grounds. (2014)
Examples of clear grounds include but are not limited to;
 - a. The vessel is found not in compliance with the minimum manning specified on its COI or SMD/SML (see 46 U.S.C. 3313).

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- b. Failure of a crewmember to have/hold an appropriate certificate;
- c. Absence in the watch of a person qualified to operate equipment essential to safe navigation, radio communications, or pollution prevention;
- d. Failure to comply with applicable work hour limits/hours of rest provisions;
- e. Inability of crewmember(s) to perform their assigned duties during abandon ship or fire-fighting drills;
- f. Inability of watchkeeping officers(s) to communicate in English;
- g. Inability of crewmember(s) to operate shipboard equipment necessary to complete operational tests as required during the general examination;
- h. Objective evidence to indicate that the master and/or crew are not familiar with their specific duties and with ship arrangements, installations, equipment, procedures, and ship characteristics that are relevant to their routine or emergency duties;
- i. Indications that key crewmembers are not able to communicate or coordinate with each other or with other persons on board; and
- j. The company fails to submit a new proposal for the vessel's minimum safe manning when changes in trading area(s), construction, machinery, equipment, operation and maintenance or management of the vessel have taken place which affects the minimum safe manning.

NOTE: Changes in management or operating company that necessitate the reissuance or amendment of the COI/SMD should prompt an administrative review of safe manning. See paragraph B1.D.6. (2017)

2. Expanded Inspections. (2014)

The following guidance should be adhered to when conducting an expanded inspection:

- a. The expanded inspection should focus on identifying all related deficiencies and subsequently providing the master an opportunity to correct them before concluding the inspection.
- b. For certain vessels, non-compliance may indicate a potential safety management system failure, warranting an additional ISM audit. Guidance regarding the enforcement of the ISM Code is contained in MSM Volume II, Section E.3.A.
- c. Coordination with the Investigations Division may be necessary should the expanded inspection indicate a possible violation or question crew competency.

PART B: VESSEL MANNING**CHAPTER 1: GENERAL PROVISIONS FOR VESSEL MANNING**3. Control Procedures and Deficiencies. (2014)

A more detailed/expanded inspection and/or audit of the safety management system (if applicable), could result in a non-conformity, deficiency, removal of the COI or SMD/SML, and/or violation of law or regulation. In the case of an inspected vessel, the OCMI can consider the removal of the COI or issuing a deficiency where the conditions of the vessel or its crew do not correspond substantially with the applicable regulations. The Vessel/Facility Inspection Requirements, Form CG-835, should be issued to document deficiencies, including prior to departure (“NO-SAILS”) when warranted. All deficiency descriptions should be as specific and descriptive as possible using quantifiable language and include the convention or regulatory cites for reference. A compliance date appropriate to the nature of each deficiency should be assigned. In making the determination, the OCMI should consider the following: the nature and severity of the deficiency, the time normally needed to correct such a deficiency, the availability of resources to correct the deficiency, and the vessel’s itinerary. For uninspected vessels, the OCMI can consider the removal of the SMD/SML. However, this may not have the same, immediate, effect as removing the COI or issuing a NO-SAIL requirement to an inspected vessel. In the case where the conditions of an uninspected vessel or its crew do not substantially correspond with the applicable regulations and a serious threat to the safety of personnel or the vessel or a serious risk to the environment is clearly evident the OCMI should consider available authority alternatives for ensuring compliance prior to departure. In either the case of an inspected or uninspected vessel, evidence, such as persistent non-compliance with rest hour requirements, may warrant a violation or personnel investigation. The marine inspector should ensure all actions are documented in MISLE. Any actions that restrict the movement or operations of a vessel should be accompanied by a MISLE “Operational Control.”

G. Administration Of Manning Scales. (2014)

For the purpose of manning, the cognizant OCMI refers to the zone in which the vessel primarily operates. The vessel should be included in the cognizant OCMI’s MISLE Fleet of Responsibility. When a vessel is certificated in one zone for operation in another, to ensure all OCMI specific interests are addressed, the development of the vessel’s minimum safe manning should be coordinated between both OCMI’s. If a vessel changes its primary area of operation to another zone, the OCMI should ensure that any outstanding inspection activities are updated, filed and entered into MISLE. The receiving OCMI should add the vessel to their MISLE Fleet of Responsibility. For transient vessels that call regularly on multiple OCMI zones, the cognizant OCMI is the OCMI that issued the COI. Manning of special or unique vessels shall be coordinated with Commandant (CG-CVC). Consult Volume I of this manual concerning waivers and appeals of manning requirements. In accordance with 46 CFR 15.510, any person directly affected by a decision or action taken under Part 15, by or on behalf of the Coast Guard, may appeal in accordance with 46 CFR 1.03.

PART B: VESSEL MANNING**CHAPTER 1: GENERAL PROVISIONS FOR VESSEL MANNING****H. Citizenship Requirements For Seamen On U.S. Documented Vessels And Foreign Vessels Within U.S. Jurisdiction. (2014, 2017)****1. Definition Of Seaman. (2014, 2017)**

In general, the term "seaman" is interpreted broadly by the Coast Guard to mean any individual engaged or employed in the business of a vessel or a person whose efforts contribute to accomplishing the vessel's business, whether that person is involved with operation of the vessel. This interpretation is consistent with expressions of congressional intent, and with judicial opinions regarding the use of the term "seaman" throughout Title 46 of the U.S. Code.

- a. A crewmember may be a seaman although he or she is not occupying a position required by the Certificate of Inspection or other Safe Manning Documentation. However, persons who are on board the vessel in a capacity other than as crewmembers are considered passengers and are not subject to the citizenship requirements; except if the person is filling a position that is designated as a "person in addition to the crew". Reference MSM Volume II Section A Chapter 3.H.2 for additional information on Persons On-Board Other Than the Minimum Operating Crew. For information on Riding Gangs, reference Chapter B.1, Section J.6.
- b. Under normal conditions, the Coast Guard does not consider a person who is briefly visiting the vessel in a consulting capacity (e.g., a vendor's technical representative) to be a crewmember. Similarly, the Coast Guard does not apply citizenship requirements to shoreside personnel who come on board vessels while they are not underway to load or unload cargo or to perform services such as maintenance of shipboard equipment. However, under most circumstances, individuals being compensated for performing their jobs while the vessel is underway are considered seamen for the purpose of applying citizenship requirements. Waiters, entertainers, industrial personnel, oil recovery workers, riding maintenance crews, and others employed in the business of the vessel are considered seamen.
- c. The actual details of a particular situation will determine whether in fact the individual in question is a seaman for the purpose of 46 U.S.C. 8103.

2. General Citizenship Requirements.

46 U.S.C. 8103(a) states that only a citizen of the United States may serve as master, chief engineer, radio officer, or officer in charge of a deck or engineering watch on a vessel documented in the United States. Section 8103(b) further states that each unlicensed seaman must be a citizen of the United States or an alien lawfully admitted to the United States for permanent residence, and not more than 25 per cent of the total number of unlicensed seamen on the vessel may be permanent resident aliens. 43 U.S.C. 1356 also imposes U.S. citizenship requirements on U.S. vessels and certain foreign vessels engaged in Outer Continental Shelf (OCS) activities on waters above our OCS.

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- a. 46 U.S.C. 8103 Exemptions. (2014)
Yachts, fishing vessels fishing exclusively for highly migratory species, and fishing vessels fishing outside the exclusive economic zone of the United States are specifically exempted from the unlicensed seaman citizenship requirements. Except for the master, any unlicensed persons serving aboard such vessels do not have to be U.S. citizens. 46 U.S.C. 12131 provides that a documented vessel may be placed under the command only of a citizen of the United States, even if the individual is unlicensed. (See B1.H.4. or Chapter B7 of this Volume for further discussion.)
- b. 43 U.S.C. 1356 Determining Citizenship Requirements. (2017)
The implementing regulations for § 1356 are found in 33 CFR Part 141. The citizenship requirements will not apply to a foreign-flagged unit which has been determined to be majority foreign owned and/or controlled. To be considered foreign-owned and/or controlled, the unit must be more than 50 percent owned and/or controlled by a foreign citizen(s) or entity. However, U.S. citizenship requirements may be imposed if the President determines that the vessel's flag country, or the nation that the owners or charters are citizens of or incorporated within, are discriminating against American vessels by excluding U.S. citizens and resident aliens from U.S. vessels engaged in offshore activities off of its shore. For guidance concerning those units determined to be subject to the citizenship requirements e.g., a unit that has a majority U.S. interest or is flagless, see Chapter B1.H.5.e. below.
- (1) Provisions For Bareboat Chartered Vessels. (2014)
Ownership and control of an OCS unit can be significantly altered by bareboat charter. [e.g. the owner/operator of a foreign vessel bareboat chartered to a U.S. citizen or corporation must employ U.S. citizens/resident aliens. Or if a foreign-flagged, American owned vessel is under a long term bareboat charter to a foreign citizen or corporation, it may be eligible for an exemption. (See B1.H.5.e of this Chapter for additional guidance.)] Refer questions involving bareboat charter to Commandant (CG-CVC).
- c. 46 U.S.C. 8103(k) Large Passenger Vessels. (2017)
See 46 CFR 15.530 for requirements pertaining to non-resident alien crewmembers holding Coast Guard-issued MMCs on U.S. flag large passenger vessels. For a detailed discussion on these requirements, see 74 FR 47729.
3. Subsidy Vessels.
Citizenship requirements for U.S. vessels for which a construction or operating differential subsidy has been granted are stated in 46 U.S.C. 8103(c) and (d).
4. Commercial Fishing Vessels. (2014)
The citizenship requirements applicable to fishing industry vessels are based on the specific class of vessel and its area of operation.

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- a. Within U.S. Exclusive Economic Zone (EEZ). (2014)
 46 U.S.C. 8103(i) provides that each unlicensed seaman on board a U.S. flagged commercial fishing, fish processing or fish tender vessel that is engaged in the fisheries in the navigable waters of the United States or within the EEZ must be:
- (1) a citizen of the U.S.;
 - (2) an alien admitted to the U.S. for permanent residence;
 - (3) any other alien allowed to be employed under the Immigration and Nationality Act 8 U.S.C. 1101 et seq; or
 - (4) an alien allowed to be employed under the immigration laws of the Commonwealth of the Northern Mariana Islands if the vessel is permanently stationed at a port within the Commonwealth and the vessel is engaged in the fisheries within the exclusive economic zone surrounding the Commonwealth or another United States territory or possession.

This provision allows 100% of the unlicensed seamen employed on such vessels operating within our EEZ to be resident aliens. However, not more than 25% of the unlicensed seamen on each vessel may be non-resident aliens identified in subparagraph B1.H.4.a.(3) above. (As noted previously in paragraph B1.H.2.a, a fishing vessel fishing exclusively for highly migratory species is exempt from these requirements.)

- b. Outside U.S. EEZ. (2014)
 A fish processing vessel and fish tender vessel operating outside the U.S. EEZ must meet the more stringent citizenship requirements of 46 U.S.C. 8103(b). A combination catcher/processor is considered a fish processing vessel unless it engages exclusively in fishing without processing any catch. A fishing vessel fishing outside the EEZ is exempt from the citizenship requirements for unlicensed seamen. (See Chapter B7 of this Volume for more information.)
- c. Distant Water Tuna Fleet. (2014, 2017)
The Coast Guard and Marine Transportation Act (CGMTA) of 2006 (Pub. L. 109-241, Sec. 421), as amended by the 2010 Coast Guard Authorization Act (CGAA, Pub. L. 111-281, Sec. 904), the Coast Guard and Maritime Transportation Act of 2012 (Pub. L. 112-213, Sec. 701), and the Howard Coble Coast Guard and Maritime Transportation Act of 2014 (Pub. L. 113-281, Sec. 601) specifies the requirements, restrictions and limitations for a foreign citizen manning exemption on Distant Water Tuna Fleet (DWTF) purse seine fishing vessels licensed to fish under the 1987 South Pacific Tuna Treaty (SPTT). Owners/operators of these vessels should provide documentation, in accordance with the established Commandant (CG-CVC) procedure, to validate and receive a determination for credential equivalency and

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foreign citizen manning exemption applicable to their vessel. Those vessels that are found to satisfy the requirements and provisions of the CGMTA 2006, as amended, will receive a foreign citizen manning exemption letter from the Coast Guard, accepting the use of foreign citizens to meet U.S. manning requirements (excluding the master). The latest policy guidance is found in the 27 March 2015 CG-CVC Policy Letter 13-04 CH-01.

5. Waivers.

46 U.S.C. 8103(b)(3) authorizes the Secretary to waive a citizenship requirement, other than the requirement that applies to the master of a documented vessel, with respect to an offshore supply vessel or other similarly engaged vessel that operates from a foreign port; a mobile offshore drilling unit or other vessel engaged in support of exploration, exploitation, or production of offshore mineral energy resources operating beyond the waters above the U.S. OCS; and any other vessels if the Secretary determines, after investigation, that qualified seamen who are citizens of the United States are not available. Under the Act of December 27, 1950, (46 App. U.S.C. 1 note; 64 Stat. 1120), "An Act to authorize the waiver of the navigation and vessel-inspection laws" the Coast Guard is directed to waive compliance of the navigation and vessel-inspection laws upon the request of the Secretary of Defense, to the extent deemed necessary in the interest of national defense by the Secretary of Defense. 43 U.S.C. 1356 authorizes "exemptions" from citizenship requirements for vessels operating on waters above the U.S. OCS.

a. Offshore Supply Vessels (OSVs) And Mobile Offshore Drilling Units (MODUs). (2014, 2017)

46 U.S.C. 8103(b)(3)(A) and (B) as implemented by 46 CFR 15.720, provides a general waiver from the citizenship requirements authorizing the employment of foreign nationals, except for the master and radio officer, aboard OSVs operating from foreign ports and MODUs operating beyond the waters above the U.S. OCS. As noted below, this general waiver does not apply if the OSV or MODU, though it has departed from a foreign port, engages in operations on the U.S. OCS. In these cases, the vessel may be subject to the separate citizenship requirements of the Outer Continental Shelf Lands Act, 43 U.S.C. 1356(c). See subparagraph B1.H.5.e. below, 33 CFR 141, and NVIC 7-84 for guidelines on exceptions from OCS citizenship requirements and procedures relating to waivers from these requirements. U.S. vessels operating under the waivers provided for under 46 U.S.C. 8103(b)(3)(A) or (B) do not have secure areas (see 33 CFR 101.105) and therefore are not required to observe TWIC requirements. However, all other MTSA requirements remain unchanged. This waiver allows offshore supply vessels and mobile offshore drilling units to employ foreign crew when operating from a foreign port or beyond the Outer Continental Shelf (see 72 FR 3492 [January 25, 2007]). However, when these vessels are not operating under these waivers (e.g., within the U.S. Outer Continental Shelf and shoreward), they do have secure areas and are required to comply with TWIC requirements.

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NOTE 1: Section 617 of the Coast Guard Authorization Act of 2010 (PL 111-281) amended 46 U.S.C. 2101(19) by removing the tonnage limitation in the definition of ‘offshore supply vessel.’ As a result, OSVs as defined under 46 U.S.C. 2101(19) are covered under this waiver, while operating from a foreign port, regardless of tonnage limitation (46 CFR 15.720(b)(1)). The 1,600 GRT (GT ITC if GRT is not assigned) limitation specified in 46 U.S.C. 8103(b)(3)(A) pertains to other similarly engaged vessels, which are not covered under 46 CFR 15.720(b). For other vessels in service similarly engaged, see Section H.5.b. of this Chapter. (2014)

NOTE 2: The term OSV, as used in this section, includes those vessels certificated under Subchapters L, I and T as noted in 46 CFR 125.100(b), as well as crew boats certificated as small passenger vessels when carrying individuals other than those defined in 46 U.S.C. 2101(21) [see H.R. Rep. No 98-338, at 138 (1983) (commenting on Section 3301 of P.L. 98-89 (S. 46))] while engaged in support of exploration, exploitation or production of offshore mineral or energy resources. However, it does not include multi-service (Certificated) vessels operating in any service other than as an OSV (see Chapter B2, Section V). For other vessels in service similarly engaged, see Section H.5.b. of this Chapter. (2014)

- (1) This waiver was necessary to allow the described vessels to operate in areas subject to foreign jurisdiction, not necessarily for global circumnavigation, where local citizenship requirements may apply and where the recruitment of U.S. citizens may be impractical. Due to the limited possibilities for employment of non-U.S. credentialed officers in most segments of the maritime industry, the U.S. has not entered into agreements with other Parties that would allow the endorsement of certificates issued in accordance with the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), as amended. In consideration of this conflict and until such a time that the U.S. fully implements STCW Regulation I/10, through 46 CFR Part 11 Subpart J, owners/operators of vessels subject to 46 CFR 15.720(b) may request that the cognizant OCMI add the following endorsement to the COI;

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WHEN OPERATING FROM A FOREIGN PORT, NOT ON U.S. WATERS, FOREIGN NATIONALS WITH VALID STCW CERTIFICATES, ISSUED BY A COUNTRY DEEMED BY THE IMO TO BE GIVING FULL AND COMPLETE EFFECT TO THE STCW CONVENTION, AS AMENDED, MAY SERVE AS AN OFFICER WITHOUT ADDITIONAL ENDORSEMENT, PROVIDED THE MASTER ADHERES TO TITLE 46, CODE OF FEDERAL REGULATIONS (CFR) 15.720(D). THE MASTER OF THE VESSEL MUST BE A U.S. CITIZEN, DULY CERTIFICATED BY THE UNITED STATES.

THIS ENDORSEMENT ESTABLISHES CONFORMITY WITH THE SAFE MANNING REQUIREMENTS OF THE UNITED STATES PERTAINING TO 46 CFR 15.720(B) IN FULL CONSIDERATION OF THE GUIDING PRINCIPLES FOR PORT STATE CONTROL (APPENDIX 11, IMO RESOLUTION 1052(27), AS REVISED).

Failure to comply with the COI will constitute a violation of 46 CFR 15.515. While operating within the terms of this endorsement, the Master should pay due regard to paragraphs (2) and (3) below. The Coast Guard will advise the maritime industry when the United States has entered into an agreement for the recognition, by endorsement, of certificates issued by or under the authority of another Party. Questions and Port State Control concerns may be addressed to Commandant (CG-CVC-1) via the Cognizant OCMI.

- (2) Vessel owners/operators should be cognizant of the citizenship waiver limitations for vessels returning to the U.S. after operating from a foreign port. The citizenship waiver found in 46 CFR 15.720(b)(1) applies only to OSVs operating from a foreign port. While it is beyond the scope of this guidance to describe every situation that constitutes "operating from a foreign port," any voyage that begins, terminates or includes intermediate port calls at a U.S. port or place is not considered "operating from a foreign port." The citizenship waivers in 46 CFR 15.720(b) do not apply to any vessel operating in the waters above the U.S. OCS. See 46 CFR 15.720(c). The term "operating" in that subsection is not limited solely to resource exploration or exploitation activities but includes field or ocean transits. Subject vessels must be manned with a crew that is fully compliant with the U.S. citizenship, credentialing, and Transportation Worker Identification Credential (TWIC) requirements.
- (3) 46 CFR 15.720(d) requires the master to assure that any replacements of crewmembers by non-U.S. citizens be with an individual who holds a credential that is equivalent in experience, training, and other qualifications to the U.S. credential required for the position. The master of the vessel should ensure that the mariner's qualifications as stated on his or her STCW endorsement are equivalent or superior to the officer endorsement qualifications required by the vessel's COI. Operators of vessels required to comply with the provisions of

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SOLAS Chapter IX are reminded that, in accordance with clause 6.2 of the ISM Code, it is the responsibility of the Company to "ensure that each vessel is manned with qualified, certificated and medically fit seafarers in accordance with national and international standards."

- b. Other Vessels Engaged In OCS Activities. (2014)
The above general waiver only applies to OSVs and MODUs. Vessels of less than 1,600 GRT (GT ITC if GRT is not assigned), which are not OSVs, but are "similarly engaged" and operated from a foreign port; and vessels which are not MODUs, but are nonetheless engaged in support of exploration, exploitation or production of offshore energy resources beyond the waters above the U.S. OCS must apply to Commandant (CG-CVC) for an individual waiver. For additional clarification on tonnage applicability see paragraph B2.A.2. The CG-CVC waiver should be similarly endorsed in accordance with paragraph B1.H.5.a.(1).
- c. Miscellaneous Vessel Types.
Vessel operators of any other vessel may apply for a waiver under subsection 8103(b)(3)(C) when "qualified seamen who are citizens of the United States are not available." Due to the availability of U.S. merchant mariners, requests for waivers under this section are rare. These requests usually must be supported by Department of Labor (DOL) certifications that qualified citizens cannot be found for the identified positions.
- d. Commercial Fishing Vessels. (2014)
Section 8103(i) of title 46 U.S.C. allows 100% of the unlicensed seamen on commercial fishing vessels operating inside the U.S. EEZ to be permanent resident aliens. There is no waiver of citizenship requirements necessary for such vessels. Commercial fishing vessels operating inside the U.S. EEZ wishing to employ more than 25% of the unlicensed crew who are non-resident aliens (Section 8103(i)(2)) should request a waiver in accordance with 46 CFR Part 28 Subpart I. Also, fish processing vessels and fish tender vessels operating outside the EEZ are required to meet the statutory requirements of Section 8103(b) and may request a waiver in accordance with 46 CFR Part 28 Subpart I.
- e. OCS Citizenship "Exemptions" (Waivers).
43 U.S.C. 1356 and 33 CFR 141 provide three individual classes of exemptions for vessels and other units (including facilities, rigs, platforms or structures), engaged in OCS activities in waters above the United States OCS.
- (1) U.S. Controlled Or Owned Vessels/Units.
A temporary exemption may be granted to U.S. controlled or owned vessels/units if there are not a sufficient number of U.S. citizens or resident aliens qualified and available for work. Congress has made the Coast Guard the agency

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responsible for accepting such waiver requests and granting such waivers if no U.S. citizens or resident aliens can be located for employment. (Refer to NVIC 7-84 for guidelines on exceptions from OCS citizenship requirements and procedures relating to waivers from these requirements.)

(2) National Registry Manning Requirement.

A foreign-flag, American-owned vessel/unit may receive an exemption for the marine crew from the citizenship requirements if the flag country of the vessel had a national registry manning requirement in effect before 18 September 1978 that required the flag country's nationals aboard vessels/units flying its flag. Also, contractual agreements made on an individual basis for a specific vessel may warrant the issuance of an exemption if such agreements were in effect before 18 September 1978.

(3) Presidential Declaration.

The President of the United States may grant an exemption for any position aboard a vessel if he determines that employment of American citizens or resident aliens would not be consistent with the national interest. This exemption would potentially be applied to address a national emergency or circumstances involving special foreign policy implications.

6. Enforcement. (2017)

Whenever a question arises as to whether or not a particular individual is properly documented as a permanent resident alien or other alien allowed to work, the Coast Guard officer should consult with local officials of the U.S. Customs and Border Protection (CBP) or U.S. Citizenship and Immigration Services (USCIS). Coast Guard units that are normally involved in enforcement of laws relating to fisheries should establish contact with the local CBP or USCIS office to discuss how questions concerning aliens will be addressed when they arise.

I. Crew Vacancies And "Sailing Short." (2014)

(See 46 CFR 15.725)

1. Introduction. (2014)

46 U.S.C. 8101(e) permits a master to "sail short," e.g., without meeting the manning requirements stated on the COI, under certain unusual circumstances. At the outset of a voyage a vessel should "possess" the complement of credentialed officers and crewmembers stipulated on the COI. The Shipping Articles, Form CG-705A, if required, would provide acceptable evidence of this. When vacancies occur at or after the time the crew is required to be aboard as specified in the Shipping Articles, the vessel may sail short, provided the vacancy was without the consent, fault, or collusion of the master, owner, or any other person interested in the vessel, and the master has made a

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conscientious effort to find a qualified replacement. In addition, the master must be satisfied that the vessel is safe to make the intended voyage.

2. Restrictions.

Convenience-type discharges, vacation time granted in accordance with collective bargaining agreements, etc., are considered "consent" actions and, therefore, not appropriate reasons for sailing short. Desertion, failure to join, hospitalization, etc., are considered "no consent" cases and, may be grounds for sailing short if the master considers the remaining complement sufficient. However, at each port or place called at during the voyage (including the port of departure), the master has an obligation to obtain qualified replacements if they are available. The master need not obtain permission to sail short, but must report the situation in writing within 12 hours of arrival at the port of destination. The master's decision to sail short is subject to the OCMI's review and appropriate administrative action should be taken if warranted (see the Commandant's Decisions on Appeal, Nos. 2136 (Dillon) and 2172 (Chapman)).

NOTE: The difference between the sailing-short provision and a national defense waiver is based upon timing and purpose. The waiver is a shortage sanctioned for national defense considerations, and is obtained before the voyage. Sailing short is based solely on the master's judgment, and is the subject of an after-the-fact report, and is not based on national defense considerations. See MSM Volume I, Chapter 2.M.3.d. for Guidelines for National Defense Waivers of Manning Requirements. (2017)

3. Filling Vacancies With Foreign Crewmembers. (2014)

46 U.S.C. 8103(e) provides that if a documented vessel is "deprived for any reason of the services of an individual (except the master and the radio officer)" while on a foreign voyage, the resulting vacancy can be filled with an individual not a citizen of the United States "until the vessel's return to a port at which in the most expeditious manner a replacement who is a citizen of the United States can be obtained." The non-U.S. citizen crewmember should hold an equivalent certificate of competency appropriate for the position being filled. The vessel would be expected to replace the non-U.S. citizen crewmember at any subsequent port call where a qualified U.S. citizen could be dispatched to meet the vessel. Operators are reminded that, whenever a vessel is deprived of the service of a member of its complement and the master or person in charge is unable to find appropriately credentialed personnel to man the vessel, a report of sailing short must be filed in writing with the Officer in Charge, Marine Inspection (OCMI) having cognizance for inspection in the area in which the vessel is operating, or the OCMI within whose jurisdiction the voyage is completed. See 46 CFR 15.725 and paragraph B.1.H.5.a.(2). Vessels that have "secure areas" and are required to comply with the TWIC requirements should refer to the applicable procedures on security measures for access control per 33 CFR 104.265.

PART B: VESSEL MANNING**CHAPTER 1: GENERAL PROVISIONS FOR VESSEL MANNING****J. Maintenance Department.****1. Background.**

In recent years, labor-saving devices and operational innovations have been introduced on merchant vessels that permit adjustments in the composition of the minimum crews required by the Coast Guard. These adjustments provide the vessel's master the flexibility to use the crew more effectively while still ensuring that sufficient qualified personnel are carried for continued safe operation of a vessel. Such adjustments may include maintenance-persons within the deck and engineering departments, or through the formation of a maintenance department. Personnel so assigned would perform duties on a regular work day basis, and would not be considered members of an established watch, as defined in 46 CFR 15.705.

2. Manning Factors.

The OCMI's authority for approving requests for changes in the required crew composition is contained in 46 CFR 15.501 and 46 U.S.C. 8101. These sections state that the COI issued to an inspected vessel specifies the minimum complement of licensed individuals and crew considered necessary for the safe operation of the vessel. Among the factors to be considered by the OCMI in determining the minimum crew complement are: installed equipment, degree of automation, use of labor saving devices, work hour limits, and the organizational structure of the vessel.

3. Crossover Between Deck And Engine Departments. (2014)

A modern vessel with a traditional deck/engine department organization may typically require 6 ABs and 3 QMEDs. When permitted by the COI, some of the individuals in a vessel's required crew complement may be engaged as maintenance-persons (deck or engine). All personnel so designated will hold ratings as AB for deck maintenance-person or an appropriate rating for engine maintenance-person. Deck or engine personnel assigned to their respective departments are subject to the crossover prohibition of 46 U.S.C. 8104(e). If the vessel establishes an acceptable maintenance department, the persons assigned to the maintenance department are available as a vessel's maintenance crew and are not subject to the crossover prohibition. These personnel may then be employed in a manner best satisfying the vessel's needs that is left to the discretion of the vessel master provided the master operates the vessel in accordance with the approved automation plan. Vessels reorganized with a maintenance department or maintenance-persons assigned to deck and engine departments would normally require credentialed ratings including 3 ABs in the deck department, and at least 5 maintenance-persons. (See Chapter B4 of this Volume for further discussion and sample manning scales for vessels which employ maintenance-persons as required crew.)

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The required personnel in the maintenance department shall hold appropriate rating endorsements (AB, QMED, etc.) so that they may be used by the vessel's master to augment navigational or machinery space watches should the need arise. For those personnel not assigned to the maintenance department, watch assignments would be governed by departmental affiliation, except under circumstances noted in 46 U.S.C. 8104(f). For personnel assigned to the maintenance department, watch augmentation will be based on individual qualifications. For example, an individual who holds both deck and engine qualifying ratings assigned to the maintenance department may be assigned to deck or engine watches. During periods in which these maintenance-persons are used to augment navigational or machinery space watches, they become part of the watch and are subject to successive watch rotation (46 CFR 15.705). Engagement of maintenance-persons with the intention of assigning any individual alternately between deck and engineering watch sections on a routine basis would be considered a violation of 46 U.S.C. 8104(e).

5. Maintenance Department Request. (2014)

A request for implementation of a maintenance department on an inspected vessel will require complete documentation from the vessel's operator describing how such a department will function within the shipboard management arrangements. The request must be made to the OCMI who last certificated the vessel or is currently conducting an inspection for certification. The documentation must include an operating manual for the vessel that describes the structure of the maintenance department, qualifications of the maintenance-persons, the responsibilities and duties of all vessel personnel when the maintenance department concept is implemented, various operating conditions under which personnel would be rotated out of the department (e.g., watchstanding augmentation), and a planned maintenance program. For vessels subject to the ISM Code, this information can be included in a revised section of the Safety Management System and submitted in lieu of a separate operating manual. (Consult Chapter B4 for additional information concerning Maintenance Departments.)

6. Riding Gangs. (2017)

Section 312 of The Coast Guard and Maritime Transportation Act of 2006, Pub. L. 109-241, 120 Stat. 516, added Section 8106 and amended 2101(26a) as well as 8103(j) and 10301(b) of Title 46, United States Code. These sections should be referenced interdependently as they are intended to commonly apply only to U.S. freight vessels on international voyages (H.R. CONF. REP. 109-413, at 70 (2006), as reprinted in 2006 U.S.C.A.N. 579, 592). For vessels subject to 46 USC 8106, MMCs are generally not required by 46 USC 2101(26a), except as provided in the Defense Acquisition Regulations in 48 CFR 212, 247, and 252 (see 76 FR 61279 [October 4, 2011]). The provisions of 46 CFR 15.1105(a), 15.1113(e) & (f) and 33 CFR 104.225 apply to riding gang members. Title 33 CFR 104.265(b) and (c) may apply with regard to TWIC, escorts, and access to secure areas (see 72 FR 3569 [January 25, 2007] for vessels operating in waters outside of

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the United States). Security background checks are required by 8106(a)(2)&(5). See MSM Volume V, Part C Chapter 6 for chemical testing and reporting.

Notification of repairs and alterations should be made in accordance with 46 CFR 91.45-1 (Notice Required) and IACS UR Z13 (Voyage Repairs and Maintenance).

For the purposes of 46 USC 8106(f)(1), and in accordance with the procedures established by the Secretary to carry out section 8103(b)(3)(C), the owner or operator should obtain evidence that aliens who are not lawfully admitted for permanent residence are authorized for employment under the Immigration and Nationality Act (INA) and evidence that qualified seamen who are U.S. citizens are not available for employment. The following documentation for H-2B non-immigrants may be considered satisfactory evidence both of authorization for employment with the owner, operator, or employer under the INA and that qualified U.S. citizens or residents are not available:

- a. U.S. Citizenship and Immigration Services (USCIS) Form I-797, "Notice of Action: Approval Notice" classifying the alien as an H-2B non-immigrant for purposes of employment with the owner, operator, or employer; and
- b. If entering the U.S., USCIS Form I-94, "Arrival/Departure Record" indicating that the alien has been lawfully admitted to the United States (or has been lawfully granted a change of nonimmigrant status or extension of non-immigrant stay in H-2B classification) for the dates covered by the proposed employment.

Employment eligibility can be verified by using the USCIS E-Verify system. Citizenship, mariner credentialing and TWIC requirements may apply, as applicable, to individuals engaged to conduct maintenance and repair work onboard all other U.S. vessels including those in domestic coastwise service. This is distinguishable from the kind of work a vendor's technical representative(s), consultant, port engineer/captain, technical superintendant/manager, or a class surveyor would do while the vessel is underway, for a short duration. Exceptions for warranty work are outlined in 46 USC 8106(d).

K. Work Hour Limits (Domestic). (2014, 2017)

(See Chapter B5 of this Volume for related discussion regarding the applicability of STCW requirements for work hours and rest periods.)

1. Tankers.

The Oil Pollution Act of 1990 (OPA 90) amended 46 U.S.C. 8104 by adding a new Subsection (n) which reads as follows: "On a tanker, a licensed individual or seaman may not be permitted to work more than 15 hours in any 24 hour period, or more than 36 hours in any 72-hour period, except in an emergency or a drill. In this subsection, "work" includes any administrative duties associated with the vessel whether performed on board the vessel or onshore."

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Various sections of 46 U.S.C. 8104 limit the number of hours that credentialed officers and/or crewmembers may be required to work on certain classes of vessels. This does not preclude seamen from voluntarily working beyond those limits and possibly becoming fatigued from excessive hours of overtime. OCMI's should consider all relevant information described in B1.C in establishing required manning levels. While there may be no definitive, scientific basis for a maximum work hour limit for vessel crewmembers, the OCMI has the discretion to impose manning levels based on a specified reasonable work hour limit taking into account fatigue and other human factors. A twelve hour work day, applied in a manner similar to the above work hour limit for tankers, is considered a reasonable work hour limit for other classes of vessels. It is recommended that the OCMI consider this work hour limit in establishing manning levels for non-tankers, adjusting for vessel specific factors that might either alleviate or exacerbate fatigue. Likewise, the OCMI may appropriately consider working conditions and work hour limits established through a collective bargaining agreement in arriving at a final manning determination. (See Chapter B5 of this Volume for additional discussion regarding working conditions.)

3. Enforcement. (2014, 2017)

During inspection activities, Coast Guard personnel shall:

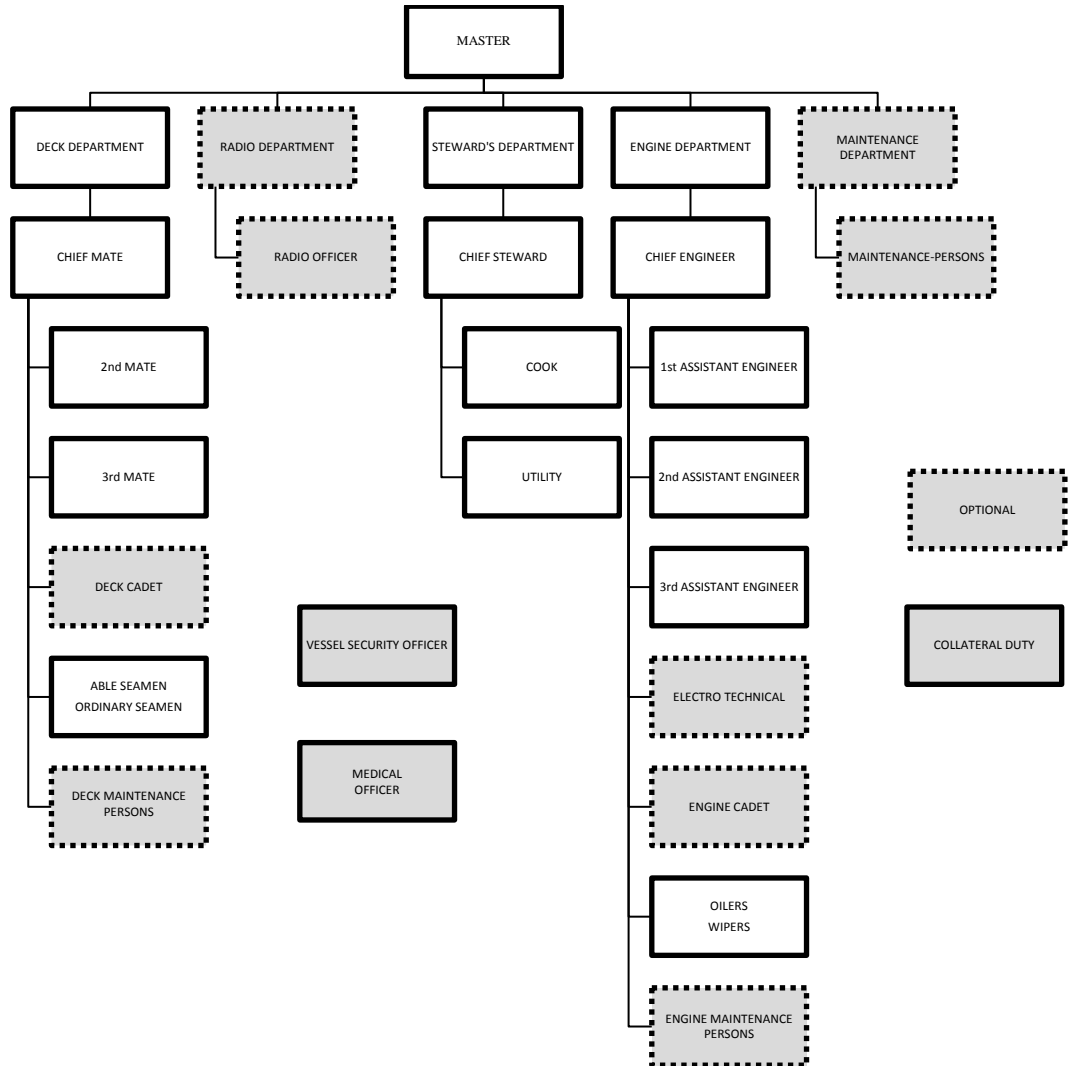
- a. Make general inquiries concerning the working conditions on board the vessel.
- b. Make a specific effort to ascertain whether the vessel's crew is complying with the applicable watchkeeping provisions and rest requirements. A review of vessel logs, maintenance records, and crew interviews with the captain and crew may be conducted at routine vessel inspections to validate adequacy of the manning level to maintain the vessel in safe operating condition. Questions asked during interviews should be framed to elicit objective responses that can be used to ascertain compliance with applicable work and rest requirements.
 - (1) Verify compliance with the applicable watchkeeping requirements, work hour provisions and rest periods while ensuring necessary maintenance has been performed. Should deficiencies be discovered and attributed to insufficient manning, the OCMI should review the previously established minimum safe manning requirements and determine whether the required complement should be modified to ensure that the vessel can be safely operated within the applicable requirements. Any modifications should be discussed with the owner/operator.
 - (2) Ensure that any resultant modifications are reflected on the COI as the minimum required manning.

See Section B5.F.3 for additional discussion on U.S. Coast Guard responsibilities, as well as Sections B6.A.4 and 5 for automated systems.

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L. Shipboard Organization. (2017)

Shipboard organizational structure will vary depending on several factors, including: vessel type, size, service, route as well as company and corporate structure. Nevertheless, the Marine Inspector must have an awareness of the shipboard organization, especially on large complex vessels. Details regarding shipboard organization and responsibilities may be found in the safety management system (ISM Code, Part A/3.2). Consider the following generic organizational chart as an example for a vessel of 1600 GRT or more:



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PART B: VESSEL MANNING**CHAPTER 2: SAMPLE VESSEL MANNING SCALES**A. Introduction. (2014, 2017)

1. Part B, Chapters 1-7 (legacy Chapters 20-26), has been structured to interlink various elements affecting the safe manning and watchkeeping on U.S. vessels and should be referenced comprehensively. Refer to paragraph B1.A for a summary of all Chapters. This Chapter is intended to assist the Officer In Charge, Marine Inspection (OCMI) in the translation of the various statutes, regulations, court decisions, and practices into minimum manning requirements on a vessel's Certificate of Inspection (COI). Sample manning scales are presented below for both general and specific classes of vessels. It must be clearly understood that these scales are stated for conventional (NON-AUTOMATED) vessels, and do not invalidate the basic legal requirements outlined in Chapter B1 of this Volume. The OCMI is not compelled to assign manning levels according to the sample scales presented below, as they are neither mandatory, nor all inclusive. They are representative of specific classes of certificate vessels. The OCMI should consider the manning level recommended by the appropriate scale as a starting point, in conjunction with the manning proposal (Section B1.D), and then determine whether fewer or more personnel are required for the safe operation of the vessel based on local circumstances and other relevant considerations which are spelled out in Section B1.C. Guidance regarding the proper entry of COI manning data is provided in Section A. Chapter 3.H. of the Marine Safety Manual, Volume II. Where manning reductions are requested or contemplated by virtue of vessel automation considerations, the OCMI should also follow the guidance in Chapter B6 of this Volume. Chapter B3 provides supplementary guidance on the manning requirements for credentialed officers. Chapter B4 provides additional guidance on manning requirements for credentialed ratings and non-credentialed crew. Manning of special or unique vessels shall be coordinated with Commandant (CG-CVC). Inquiries and correspondence concerning manning requirements should be directed to Commandant (CG-CVC).

NOTE: For natural gas-fueled vessels, reference CG-OES Policy Letter 01-15: Guidelines for Liquefied Natural Gas Fuel Transfer Operations and Training of Personnel on Vessels Using Natural Gas as Fuel. Specifically, Enclosure (3): Interim Guidance on Training for Mariners on Vessels using Gases or Other Low Flashpoint Fuels until regulations are finalized. (2017)

2. The regulatory text of Title 46 CFR Chapter I, Subchapter B, referenced throughout Part B, Chapters 1-7 of this Volume uses the term “gross tons.” In each relevant instance this term refers to the gross tonnage under the Regulatory Measurement System (GRT), if assigned, and that vessels without an assigned GRT use their gross tonnage under the Convention Measurement System (GT ITC) to apply provisions dependent on “gross tons.”
3. A variable [denoted by (*)] is an additional factor or condition that the OCMI may consider, dependent upon the characteristics of a vessel, as an alternative to the standard number specified in the applicable sample manning scale. Nevertheless, the established manning level must not be less than the minimums stipulated by law or regulation.

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B. Mechanically-Propelled Passenger Vessels Of 100 GRT Or More. (2014, 2017)

1. Sample Scales.

Route	Master	Mate	Able Seamen	Ordinary Seamen	Radio Officers	Patrolman/ Watchman	Deckhands	Certificated Lifeboatmen	Chief Engineer	Assistant Engineer	QMFD, (Fireman/ Watertender) ¹²	QMFD, (Officers)	Tankermen
Oceans/ Coastwise/ Great Lakes ≥1,000 GRT ≥400 Miles	1 ^[3]	*3 ^[1,3]	*6 ^[5]	*3 ^[5]	*4 ^[4]	*	-	*7 ^[7]	*1	*3 ^[2, 11]	*3 ^[6, 11]	*3 ^[6, 11]	-
Oceans/ Coastwise/ Great Lakes ≥1,000 GRT <400 Miles	1 ^[3]	*2 ^[1,3]	*6 ^[5]	*3 ^[5]	*4 ^[4]	*	-	*7 ^[7]	*1	*3 ^[2, 11]	*3 ^[6, 11]	*3 ^[6, 11]	-
Oceans/ Coastwise/ Great Lakes <1,000 ≥100 GRT	1 ^[3]	*2 ^[1,3]	*6 ^[5]	*3 ^[5]	*4 ^[4]	*	-	*7 ^[7]	*1	*3 ^[2, 11]	*3 ^[6, 11]	*3 ^[6, 11]	-
Oceans/ Coastwise/ Great Lakes <200 ≥100 GRT ≤24 Hours	1 ^[3]	*1 ^[1,3]	*6 ^[5]	*3 ^[5]	*4 ^[4]	*	-	*7 ^[7]	*1	*3 ^[2, 11]	*3 ^[6, 11]	*3 ^[6, 11]	-
Lakes, Bays & Sounds ^[8]	1	*1 ^[11]	*4 ^[5]	*2 ^[5]	-	*1	-	*7 ^[7]	*1	*1 ^[2, 11]	*2 ^[6, 11]	*2 ^[6, 11]	-
Lakes, Bays & Sounds ^[8,9]	1	*1 ^[11]	*2 ^[5]	*1 ^[5]	-	*1	-	*7 ^[7]	*1	-	*1 ^[6, 11]	*1 ^[6, 11]	-
Rivers	1	*1 ^[11]	-	-	-	*1	*8 ^[10]	-	*1	*1 ^[2, 11]	2 ^[10, 11]	2 ^[10, 11]	-

[1] See B3.D for Mate computations and COI formatting
 [2] See B3.F for Engineer computations and COI formatting
 [3] See B3.I for Federal Pilotage
 [4] See B3.L for Radio Officers and GMDSS
 [5] See B4.D for Deck Department Ratings
 [6] See B4.E. for Engine Department Ratings
 [7] See 46 CFR 15.404(e) and (g) for Lifeboatmen
 [8] Except Great Lakes
 [9] 12-Hour Operation
 [10] Not credentialed
 [11] See B6.A.3.b(4)(d)&(e) for Issuance of COI with reduced manning based on automated engineering systems.
 [12] Steam propulsion
 * Denotes variable

PART B: VESSEL MANNING**CHAPTER 2: SAMPLE VESSEL MANNING SCALES**2. Variables.a. Mates. (2014)

The number of credentialed mates required on inspected oceangoing or coastwise vessels depends on the gross tonnage of the vessel (see 46 U.S.C. 8301 and 46 CFR 15.810). Mates on Great Lakes Vessels must also possess First Class Pilot endorsements, (46 CFR 15.812).

b. Mate/First Class Pilots.

On inland vessels a sufficient number of Mates/First Class Pilots should be provided to divide watchkeeping duties into at least two watches when the vessel operates more than 12 hours in a 24 hour period.

c. Able Seamen (ABs). (2014)

Depending on the size of the vessel and its needs for safe navigation, this number may vary. Except for vessels on rivers or lakes (other than the Great Lakes), at least 65 percent of the deck crew must be ABs (see 46 U.S.C. 8702, 46 CFR 15.840, and Chapter B4).

d. Ordinary Seamen.

This number will vary in proportion to total deck crew.

e. ABs And Ordinary Seamen. (2014)

On ocean or coastwise routes, the number of ABs and ordinary seamen carried must be sufficient for the watch system provisions of 46 U.S.C. 8104 and 46 CFR 15.840. Deckhands may be permitted in lieu of ABs and ordinary seamen on river routes. A specially trained ordinary seaman may be substituted for able seaman in certain situations. If an ordinary seaman receives additional lookout procedure training, it is within the discretion of the local OCMI to allow the substitution of an able seaman with a specially trained ordinary seaman and to amend the COI to reflect the situation. But under no circumstances is the OCMI to amend a COI to reflect a manning scale which contradicts 46 U.S.C. 8702(b), which mandates that 65% of the deck crew shall be an able seaman. Reference Section B4.D.1 for additional information concerning the substitution of able seamen with specially trained ordinary seamen.

f. Certificated Lifeboatmen. (2014)

The number of certificated lifeboatmen must be separately stated on the COI. This number will vary depending on the lifeboat and life raft requirements for each vessel, in accordance with the regulations (see 46 CFR 15.845 and 199.100). There must be a sufficient number of persons certified as lifeboatmen on board the vessel for mustering and assisting untrained persons. There must be a sufficient number of deck officers, able seamen, or persons certificated as lifeboatman on board the vessel to operate the survival craft and launching arrangements required for abandonment by the total number of persons on board. There must be one person placed in charge of each survival craft to be used. The person in charge must be a deck officer, able seaman, or other person certificated as a lifeboatman. The OCMI, considering the nature of the voyage, the number of persons permitted on board, and the characteristics of the vessel, may permit persons practiced in the handling and

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operation of liferafts or inflatable buoyant apparatus to be placed in charge of liferafts or inflatable buoyant apparatus. There must be a second-in-command designated for each lifeboat. This person should be a deck officer, able seaman, or other person who is certificated as a lifeboatman. For example, the required number of lifeboatmen for a vessel equipped with two lifeboats (one on each side of the vessel) would be four (one primary and one secondary, per lifeboat). Alternatives for passenger vessels in a specified service can be found in 46 CFR 199.630.

- g. Patrolmen. (2014)
The number of patrolmen is determined by the number of patrol routes required to cover all parts of the vessel accessible to passengers or crew, so that each space will be covered at least once every hour from 10 p.m. to 6 a.m. (46 CFR 78.30-10; 46 CFR 15.855).
 - h. Watchmen. (2014)
The number of watchmen is determined by the need to provide a suitable watch to be stationed in the passenger accommodation areas on each deck during the night (46 CFR 78.30-15; 46 CFR 15.855).
 - i. Credentialed Engineers. (2014)
See Chapter B3 of this Volume.
 - j. QMED (Firemen/Watertenders And Oilers). (2014, 2017)
The number and specific ratings will vary based on the number and location of boilers, type of fuel, number of furnaces, arrangement of machinery spaces, type and degree of automation, and (for oceangoing, coastwise, and Great Lakes vessels) the watch provisions of 46 U.S.C. 8104. In the case of motor vessels, no firemen/watertenders are normally required. For vessels not required to carry credentialed personnel in accordance with 46 U.S.C. 8701 and 8702, it is appropriate to include the ratings by name on the COI, followed by "NC" (Not Credentialed).
 - k. GMDSS Radio Operators. (2014)
As discussed in 46 CFR 15.817 every person in the required complement of deck officers, including the master, on seagoing vessels equipped with a GMDSS, except those vessels listed in 46 CFR 15.105(f) and (g), must provide evidence of a valid STCW endorsement as GMDSS radio operator. One of the operators must be designated by the vessel's master as assigned to communicate during a distress situation. Vessels voluntarily relying on the at-sea maintenance provision of the GMDSS must have onboard a licensed GMDSS Radio Maintainer. There is no limitation for who in the crew can be designated to perform this function so long as they are duly certified. Vessels without GMDSS will still require radio officers as determined by the FCC.
3. Passenger Vessel Safety Act of 1993(PVSA), Exemption [46 CFR 70.05-18, 175.118]. (2014, 2017)
All officers must be endorsed for the appropriate vessel tonnage. Specific crewing requirements for vessels exempted under the PVSA can be found in 46 CFR 175.118(c)(3). See Section C. of this Chapter for the Small Passenger Vessel (Under 100 GRT) sample manning scales.

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NOTE: See MSM Volume II Section B.4.CC. for Inspection and Certification of Moored Passenger/Attraction Vessels including Crew Assignments (regardless of tonnage). (2017)

C. Small Passenger Vessels (SPVs) (Under 100 GRT). (2017)

The types, sizes, and operating conditions of small passenger vessels are so varied among the OCMI zones, and within each OCMI zone it would be difficult, if not impossible, to develop a uniform national manning standard for the entire class of vessels. The following manning scales and guidance are provided to assist the OCMI in determining the manning requirements for small passenger vessels. The variations within this vessel class demand the OCMI evaluate each vessel and exercise good judgment in establishing the minimum safe manning. It is emphasized that the OCMI is not compelled to assign manning according to the sample scales in this section as they are neither mandatory, nor all inclusive. The OCMI should consider the manning levels presented as a starting point then determine whether fewer or more personnel are required for the safe operation of the vessel based on local conditions and other considerations noted in Section B1.C. The scales are considered a valid reference that could be quoted to a prospective builder or Small Passenger Vessel (SPV) buyer as a conceptual manning level. See MSM Volume II Section B.4.J. for Boy Scout Vessels, including manning.

1. Sample Scale. (2017)

Route	Master	Mate	Able Seamen	Ordinary Seamen	Radio Officers	Patrolman/ Watchman	Deckhands	Certificated Lifeboatmen	Chief Engineer	Assistant Engineer	QMED. (Fireman/Watertender)	QMED. (Others)	Tankermen
General Operations	1 ^[4]	* 1 ^[4]	-	-	-	-	*[1,2,3,5]	-	-	-	-	-	-

- [1] One crewmember for each passenger deck.
- [2] Additional deckhands based on number of passengers on board and hours of operations (See table in Section B below).
- [3] See B4.B.1. for additional discussion on the impact of international conventions on certain vessels employing deckhands.
- [4] See B3.I for Federal Pilotage
- [5] Not credentialed
- * Denotes variable

a. Definitions. (2014, 2017)

- (1) Crewmember. A crewmember includes credentialed officers, ratings, and deckhands required by the Certificate of Inspection. Navigating bridge configuration and other local conditions should be considered by the OCMI in determining whether the credentialed officer in charge of the navigating watch is capable of adequately observing and directing passengers on the bridge deck without assistance.

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(2) Passenger Deck. A passenger deck is a level accessible to and used by passengers when the vessel is underway. A portion of a deck used only for passage between levels such as a stairway landing, lobby or vestibule is not a passenger accessible deck for manning purposes. In addition, partial decks may be monitored by a crewmember assigned to a full passenger deck provided the crewmember makes regular rounds of the partial deck.

(3)

b. Table Of Additional Deckhands. (2017)

PASSENGERS ON BOARD	NOT MORE THAN 12 HOUR OPERATION	MORE THAN 12 HOUR OPERATION
0-150	0	1
151-300	1	2
301-500	2	4
501-800	3	6
801 & Up	4	8

See paragraph C.2.b. below for additional deckhand variables.

c. COI Endorsements.

For vessels that carry varying numbers of passengers the OCMI should provide a sliding scale of the total number of deckhands required indicating the number of passengers carried. When preparing the manning section of the COI, the vessel's regular operating hours should be considered. If the operation is more than 12 hours, a determination should be made as to whether there are adequate facilities for the off watch crew to rest. If the vessel's general operation is 12 hours or less, or there are not adequate facilities for the off watch crew to rest during operations of more than 12 hours, the COI should be prepared with a 12 hour crew complement in the manning blocks and the following endorsement under the Route Permitted and Conditions of Operations section of the COI:

IF THE VESSEL IS AWAY FROM THE DOCK, OR PASSENGERS ARE ON BOARD OR HAVE ACCESS TO THE VESSEL FOR A PERIOD EXCEEDING 12 HOURS IN A 24 HOUR PERIOD AN ALTERNATE CREW SHALL BE PROVIDED.

The vessel that routinely operates in excess of 12 hours in a 24 hour period and has adequate facilities for the off watch crew to rest, should be issued a COI with a 24 hour crew in the manning blocks. If the vessel owner uses an alternate crew arrangement then the alternate crew endorsement should be used.

d. High Capacity Small Passenger Vessels. (2014)

The increased size of small passenger vessels has resulted in the carriage of great numbers of passengers and will require manning above the scales listed above. This determination can best be made by the OCMI certifying the vessel based on the vessel's characteristics, route, number of passengers and crew required to successfully

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respond to all operational and emergency situations. The operation of these high capacity, small passenger vessels on certain routes may call for inclusion of a radar observer endorsement on master and mates credentials.

2. Variables. (2014)

a. Mates. (2014)

The requirement for credentialed mates on vessels of less than 100 GRT is found in 46 CFR 15.810. At least one mate is required on vessels engaged in voyages exceeding 12 hours in duration (see 46 CFR 15.810(b)(5)).

(1) Ocean And Coastwise Routes.

If operational safety is unaffected the OCMI may choose not to require a mate on vessels operating not more than 12 hours in a 24 hour period provided; (1) the number of passengers on board is less than 400, or (2) the vessel accommodates less than 50 overnight passengers.

(2) Great Lakes And Inland Service, And Restricted Routes.

The OCMI may delete the mate on vessels operating not more than 12 hours in a 24 hour period under the same conditions as noted under ocean and coastwise vessels. Additionally, the OCMI having considered all safety issues (e.g., the uniqueness of the operation, crew qualifications, the restrictiveness of the route) may choose not to require a mate regardless of the number of passengers carried.

(3) Less Than 12 Hours. (2014)

A credentialed mate on vessels having voyages of less than 12 hours may be engaged to serve as the senior deckhand. He or she would be available to take over navigational responsibilities and also be present to supervise other operational and emergency concerns.

The above considerations notwithstanding, the mate should be required on all vessels carrying more than 150 passengers and/or having overnight accommodations for more than 49 passengers. A designated senior deckhand may replace the mate provided he or she is qualified under NVIC 1-91, as amended, guidelines. Crewmembers qualified as senior deckhand should be designated in writing by the master with a copy retained on board the vessel. A senior deckhand shall be capable of directing the emergency response actions of the vessel's crew. In the event the master becomes incapacitated, a senior deckhand must be capable of maneuvering the vessel and returning it to a position of safety.

b. Deckhands. (2014)

The authority to determine the complement (number) of deckhands required on small passenger vessels is 46 U.S.C. 8101. The Coast Guard does not prescribe deckhand qualifications. NVIC 1-91, as amended, provides guidance on recommended qualifications and training for deckhands on small passenger vessels.

There should normally be a deckhand assigned for each deck to which passengers have access, except when the master and/or mate of a vessel can adequately observe and direct the passengers on one deck. The OCMI is not compelled to require a

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deckhand assigned to that same deck to assist the master. The OCMI is not bound to the requirements of Table B2.C.1.b but retains the discretionary authority to assign fewer deckhands, provided that a satisfactory level of operational safety is maintained.

When determining the minimum number of deckhands required the OCMI must consider the following; (1) local circumstances, (2) route, (3) proximity to shore, (4) assistance availability, (5) voyage length, (6) vessel design and construction, (7) crew capabilities, and (8), any other related factors. When applicable, a company's safety record and its training and qualification programs should also be considered in establishing deckhand requirements.

The OCMI must be satisfied that the unlicensed crew is properly trained to perform vessel operations. In general this should be accomplished during the vessel inspection process including the witnessing of performance of emergency drills, the questioning of the crew on duties assigned and/or the review of the company training program. A smaller well trained and qualified crew may be much more capable than a larger number of less qualified deckhands.

The OCMI should consider all variables which are a result of the vessel's design and function, in addition to taking into account an organization's operational structure and policies. For instance, a sailing vessel with extensive rigging or a passenger/cargo vessel using its crew for stevedoring may require additional deckhands. Conversely, certain vessels such as high capacity passenger vessels or vessels operating on restricted routes may require fewer deckhands. If safety remains unaffected, the OCMI may allow a portion or all of the deckhands to perform other duties, such as concessionaire or waiter. These persons must at all times be capable of responding readily to their assigned emergency duties and other deck department related functions. For public health reasons cooks and food handlers should not normally perform or be assigned to deckhand duties.

c. Machinery Operation.

When determining the manning levels for Small Passenger Vessels the OCMI should consider what levels of engineering skills are necessary to operate the vessel safely on its intended route. The OCMI must ensure that owners/operators of Small Passenger Vessels employ someone having a good working operational knowledge of the following; (1) main and auxiliary machinery, (2) steering systems, (3) alarms and monitoring systems, (4) fueling techniques, and (5), emergency procedures. Based on vessel size and engineering complexity, the following levels of engineering expertise should be considered:

(1) Simple Systems.

On vessels with simple engineering systems, it may be necessary that only the master and/or deckhand have these skills.

(2) Complex Systems.

On vessels with more complex engineering systems or vessels that do not carry a

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mate, deckhands may need special training in routine and emergency engineering tasks.

(3) Main And Auxiliary Systems. (2014)

On vessels with large main and auxiliary engineering systems, multiple decks, extended routes, or other similar conditions, it may be necessary that the OCMI place a requirement on the COI for one or more credentialed engineers (see 46 CFR 15.825(b)). Chapter B3 of this Volume discusses Coast Guard policy for credentialed engineers on vessels of less than 300 GRT.

3. Drills. (2014)

The use of drills is suggested to ensure that manning levels on vessels are sufficient for emergency situations. The vessel master or mate directs the drills; Coast Guard marine inspectors witness and evaluate the drills. In addition, drills should not place the vessel or any crewmembers in jeopardy. Crewmembers should not be allowed to enter the water. Crewmembers should not maneuver the vessel without direct supervision of the master or a credentialed mate.

4. Launches And Water-Taxi Vessels.

Many unusual hazards exist in launch service or water-taxi operations that are not normally encountered by excursion passenger vessels. These hazards are more pronounced on vessels where the master is the only crewmember. Casualty analysis has revealed the following potential hazards of "solo" operation:

a. Debarking Alongside.

The operator is unable to control or assist debarking passengers when alongside an anchored vessel, as he/she must remain at the controls;

b. Intoxicated Passengers.

Persons returning from shore who are under the influence of alcohol may require supervision and assistance. A single operator cannot provide this aid while underway or maneuvering alongside;

c. Language Difficulties.

A foreign passenger may not understand English well and may not be able to alert the operator of an emergency situation or fully understand verbal instructions. A deckhand would be able to assist passengers and visually demonstrate emergency procedures if necessary; and

d. Man Overboard.

It may be extremely difficult for a single operator to maneuver a vessel alongside a person in the water and to recover a person from the water. The OCMI should consider the above hazards when prescribing manning levels for these vessels. The need for a deckhand should be closely evaluated. Commuter type launches and water

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taxis operating on dedicated runs may not experience all of the above hazards. In certain situations, one-person operation may be acceptable.

5. Alternative Requirements for Vessels Operating Other than a SPV. (2017)

Reference 46 CFR 115.114 & 176.114 for Alternative Requirements for a Vessel Operating as Other than a Small Passenger Vessel. The intent of this provision is to allow an inspected small passenger vessel to operate as an uninspected or recreational vessel by an endorsement in the vessel's COI. A vessel operating under an alternative endorsement must comply with the minimum Manning specified on the COI, which may include reduced Manning based on the type of operation and number of passengers carried (62 FR 51326, 51331). It is recommended that the COI endorsement specify if corresponding MMC endorsements (e.g., OUPV, UFIV) are permitted depending on the type of operation.

D. Passenger-Carrying Barges Under Tow. (2014)

1. General. (2014)

Inspected passenger-carrying barges shall be required to carry a credentialed master, mate and number of able seamen, ordinary seamen, or deckhands. With the exception of credentialed officers, credentialed seamen are not required on inland passenger-carrying barges as provided for in 46 U.S.C. 8701. Unless stated otherwise, many of the principals and terms stated in Section C of this Chapter apply.

2. Dual-Mode Passenger-Carrying Vessel Combinations (Inland Waters). (2014, 2017)

Dual-mode passenger-carrying vessel combinations are those where a towing vessel and a barge are coupled by conventional means and where the operator of the towing vessel navigates the combined units from the towing vessel. Except for navigation, barge operations will be considered as independent of the towing vessel's systems and equipment. It should be noted that the towing vessel could be another passenger vessel, a towing vessel (inspected or uninspected), or another inspected vessel. Nevertheless, manning will be considered separately for each vessel; the towing vessel will be manned for the route and type of operation as appropriate and the barge will be manned as an inspected passenger vessel under the appropriate Subchapter.

a. Dual-mode passenger-carrying vessel combinations, in which an inspected vessel is used as the towing vessel, may be operated by;

- (1) Where the towing vessel is a passenger or other inspected vessel of greater than 200 GRT, masters and mates of inspected vessels of appropriate route and tonnage may operate such vessels with a completed TOAR and 30 or 90 days of familiarization, as appropriate; or,

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- (2) Where the towing vessel is a passenger or other inspected vessel of 200 GRT or less, masters and mates of towing vessels of an appropriate route OR masters and mates of inspected vessels of appropriate route and tonnage may operate such vessels. Any additional requirements for masters and mates of inspected vessels are to be determined by the local OCMI on a case-by-case.
- b. At the discretion of the OCMI, dual-mode passenger-carrying vessel combinations, in which an uninspected or Subchapter M towing vessel is used, may be operated by;
- (1) Masters and mates of towing vessels of an appropriate route;
 - (2) For towing vessels of greater than 200 GRT, masters and mates of inspected vessels of appropriate route and tonnage may operate such vessels with a completed TOAR and 30 or 90 days of familiarization, as appropriate (see 46 CFR 11.464/11.465); or,
 - (3) For towing vessels of 200 GRT or less, masters and mates of towing vessels of an appropriate route OR masters and mates of inspected vessels of appropriate route and tonnage may operate such vessels. Any additional requirements for masters and mates of inspected vessels are to be determined by the local OCMI on a case-by-case basis.

NOTE: (See 68 FR 1999-6224, 116 [June 17, 2003]). (2014)

Barge.

Route	Master	Mate	Able Seamen	Ordinary Seamen	Radio Officers	Patrolman/ Watchman	Deckhands	Certificated Lifeboatmen	Chief Engineer	Assistant Engineer	QMED. (Fireman/ Watertender)	QMED. (Others)	Tankermen
General Operations	1	*1	-	-	-	-	* [1,2,3]	-	-	-	-	-	-

[1] One deckhand for each passenger deck.
 [2] Additional deckhands based on number of passengers on board and hours of operations (See table in Section D.3 below).
 [3] Not credentialed
 * Denotes variable

NOTE: The towing vessel must be operated by at least one appropriately credentialed officer for each 12 hours of operation. (2014)

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PASSENGERS ON BOARD	NOT MORE THAN 12 HOUR OPERATION	MORE THAN 12 HOUR OPERATION
0-150	0	1
151-300	1	2
301-500	2	4
501-800	3	6
801 & Up	4	8

See paragraph D.4.c. below for additional deckhand variables.

* **Denotes Variables**

4. Variables.a. Master. (2014)

On inspected passenger-carrying barges there must be at least one master for the barge credentialed under 46 CFR Part 11. Any required mates will be credentialed under the same section. The credential must be endorsed for the gross tonnage of the passenger-carrying barge. Any credential of comparable tonnage authorizing service on a self-propelled inspected vessel would also satisfy the requirement.

(1) Master In Charge Of Towing Vessel And Passenger-Carrying Barge. (2014)

A master for the passenger-carrying barge may not be required in situations where the OCMI considers that the responsibilities for both the towing vessel and the passenger-carrying barge can be safely vested in one individual on the towing vessel. The passenger-carrying barge's COI must be endorsed to indicate the conditions when a master for the passenger-carrying barge is not required. For combined units (i.e. towing vessel and passenger-carrying barge) with an aggregate tonnage greater than 200 GRT, the COI will also require the master of the combined unit to hold a credential as master of inspected, self-propelled vessels of sufficient scope (e.g. route, aggregate tonnage, TOAR, familiarization) authorizing service on both vessels (see paragraph D.5 of this Chapter below). Alternatively, for the combined unit, the Coast Guard may consider a restricted endorsement under 46 CFR 11.201(1) to satisfy the unique qualification requirements of an applicant or distinct group of mariners. This would require coordination with the OCMI and NMC. The authority granted by this officer endorsement will be restricted to reflect any modifications made under the authority of 46 CFR 11.201(1). The unlicensed towing vessel crewmembers may not be used to satisfy the crew requirements on the passenger-carrying barge.

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The OCMI has discretion to not require a mate on passenger-carrying barges operating not more than 12 hours in a 24 hour period when the passengers on board do not exceed 399, and/or there are overnight accommodations for not more than 49 passengers; or regardless of the number of passengers in any case where, because of the nature of the route, operating conditions, crew qualifications, or other factors the OCMI considers it safe to do so. In determining whether not to require the mate for the 12-hour or less operation, on vessels less than 100 GRT, the OCMI should consider whether there is an assigned senior deckhand as described in the NVIC 1-91, as amended, "Recommended Qualifications For Small Passenger Vessel Deckhands." The senior deckhand should be designated in writing by the master with a copy retained aboard the passenger-carrying barge. The senior deckhand shall be capable of directing the crew in an emergency and assuming the master's responsibilities, if the master becomes incapacitated.

c. Deckhands. (2014)

The criteria in Section B2.D.2 should be used as a guide in determining the number of deckhands required. Passenger-carrying barges of unique design or restricted operations may require different manning scales. In addition, the method of towing may indicate a different requirement for the number of deckhands. The OCMI will provide on the COI a sliding scale detailing the deckhand requirements for barges that carry varying numbers of passengers. The number of deckhands required will be based on the number of decks and passengers carried. Paragraph C.2.b of this Chapter may be referenced for a more detailed discussion.

d. Multiple Passenger-Carrying Barge Combinations. (2014)

For multiple passenger-carrying barge combinations an OCMI may assign manning scales based on the separate units or as a single scale for the combined unit. In some cases it may not be necessary or practical to have a separate crew for each passenger-carrying barge. When assigning one crew to a multiple passenger-carrying barge combination, the OCMI should ensure that there is at least one crewmember for each passenger-carrying barge when the tow is underway, and sufficient crewmembers for a roving patrol whenever the tow is docked with passengers on board.

e. Machinery Operation. (2014)

Passenger-carrying barges under tow should not be operated unless some member of the crew has a good working knowledge of the operation and use of the auxiliary machinery, alarms, electrical systems, and emergency procedures. The OCMI must ensure that the owners/operators crew the vessels with individuals having these qualifications. In most cases the master of the barge or a properly trained deckhand would meet this requirement.

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5. Push-Mode Passenger-Carrying Integrated Towing Vessel-Barge Combinations (ITB) (Inland Waters). (2014, 2017)

Push-mode passenger-carrying integrated towing vessel-barge combinations are those in which a specially designed propulsion unit (towing vessel) is mated to the passenger-carrying barge. The navigation and operation of the combined unit can be accomplished from a control station located on the passenger-carrying barge. The barge cannot operate independently of the towing vessel, which provides its power and other passenger services. These push-mode passenger-carrying ITB combinations are designed, outfitted and intended to operate as a single unit and therefore will be manned as a single vessel. The master and mates must hold inspected vessel credentials with tonnage limitations appropriate to the aggregate tonnage of the towing vessel and barge combination (see NVIC 2-81, as amended). Masters and mates of inspected vessels greater than 200 GRT may operate such vessels with a completed TOAR and 30 or 90 days of familiarization, as appropriate (see 46 CFR 11.464/465). The rare scenario of a push-mode passenger-carrying integrated towing vessel-barge combination of 200 GRT or less is best handled by the local OCMI on a case-by-case.

Combined Unit.

Route	Master	Mate	Able Seamen	Ordinary Seamen	Radio Officers	Patrolman/ Watchman	Deckhands	Certificated Lifeboatmen	Chief Engineer	Assistant Engineer	QMED (Fireman/ Watertender)	QMED (Officers)	Tankermen
General Operations	1	*1	-	-	-	-	* [1,2,3,4]	-	-	-	-	-	-

- [1] One deckhand for each passenger deck.
- [2] Additional deckhands based on number of passengers on board and hours of operations (See table in Section B2.D.3 above).
- [3] See B4.B.1. for additional discussion on the impact of international conventions on certain vessels employing deckhands.
- [4] Not credentialed
- * Denotes variable. Variables described in Section B2.D.4 above may be generally applied to these integrated towing vessel-barge combinations.

As the statutory and regulatory requirements for push-mode ITBs are based on the aggregate tonnage of the combination, vessels of this class could equal or exceed 1,600 GRT. Accordingly, the OCMI may reference Section G.1 of this Chapter or any other section for manning levels consistent with a conventional vessel of the same tonnage, route, and service.

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In preparing the manning section of the COI, the regular operation of the passenger-carrying barge should be reviewed to determine whether the operation is more than 12 hours. If the operation is more than 12 hours, a determination should be made as to whether there are adequate facilities for the off watch crew to rest. On vessels where there are no adequate facilities for the off watch crew to rest, and on vessels that generally operate less than 12 hours, the COI should be prepared with a 12 hour crew in the manning blocks and the following endorsements:

IF THE VESSEL IS AWAY FROM THE DOCK, OR PASSENGERS ARE ON BOARD OR HAVE ACCESS TO THE VESSEL FOR A PERIOD EXCEEDING 12 HOURS IN A 24 HOUR PERIOD AN ALTERNATE CREW SHALL BE PROVIDED."

The COI on passenger-carrying barges that routinely operate in excess of 12 hours in a 24 hour period, and have adequate facilities for the off watch crew to rest, should be prepared with a 24 hour crew in the manning blocks unless the passenger-carrying barge owner requests to use an alternate crew arrangement. In this case the 12 hour alternate crew endorsement above should be used.

NOTE: If these vessels exceed 100 GRT and are on a voyage of over 600 nautical miles, they must comply with the requirements of 46 U.S.C. 8104(d). (2014)

7. Seagoing Passenger-Carrying Barges. (2014)

The manning and qualifications requirements for seagoing passenger-carrying barges will be handled on an individual basis. The OCMI will submit proposed manning for these vessels to Commandant (CG-CVC) for review. Insofar as practical, the required manning for these vessels should parallel that of inland vessels of similar tonnage, passenger capacity, and configuration. Special emphasis must be placed on ability of the crew to handle emergencies, control and care for passengers, and use all required lifesaving equipment.

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E. Mechanically-Propelled Cargo/Tank Vessels Of 100 GRT Or More. (2014)

1. General. (2014)

Tank vessel manning standards are required by 46 U.S.C. 9102 to take into account a number of factors relating to the duties, qualifications, and training of officers and crew. These factors include standards related to vessel navigation, cargo handling, size and type of vessel, qualification by virtue of simulator training, maintenance functions, physical fitness criteria, as well as retraining and special training requirements. Section B1.C also addresses specific factors to be considered in manning determinations.

2. Sample Scales. (2017)

Route	Master	Mate	Able Seamen	Ordinary Seamen	Radio Officers	Certificated Lifeboatmen	Chief Engineer	Assistant Engineer	QMED. (Fireman/Watertender) ¹³	QMED. (Others)	Tankermen
Oceans/ Coastwise/ Great Lakes ≥1,000 GRT ≥400 Miles	1 ^[3]	*3 ^[1,3]	*6 ^[5]	*3 ^[5]	*[4]	*[8]	*1	*3 ^[2, 12]	*3 ^[6, 12]	*3 ^[6, 12]	*3 ^[7,11]
Oceans/ Coastwise/ Great Lakes ≥1,000 GRT <400 Miles	1 ^[3]	*2 ^[1,3]	*6 ^[5]	*3 ^[5]	*[4]	*[8]	*1	*3 ^[2, 12]	*3 ^[6, 12]	*3 ^[6, 12]	*3 ^[7,11]
Oceans/ Coastwise/ Great Lakes <1,000 GRT ≥100 Miles	1 ^[3]	*2 ^[1,3]	*6 ^[5]	*3 ^[5]	*[4]	*[8]	*1	*3 ^[2, 12]	*3 ^[6, 12]	*3 ^[6, 12]	*3 ^[7,11]
Oceans/ Coastwise/ Great Lakes <200 GRT ≥100 Miles ≤24 Hours	1 ^[3]	*1 ^[1,3]	*6 ^[5]	*3 ^[5]	*[4]	*[8]	*1	*3 ^[2, 12]	*3 ^[6, 12]	*3 ^[6, 12]	*3 ^[7,11]
Lakes, Bays & Sounds ^[9]	1	*1 ^[1]	*4 ^[5]	*2 ^[5]	-	*[8]	*1	*1 ^[2, 12]	*2 ^[6, 12]	*2 ^[6, 12]	*2 ^[7]
Lakes, Bays & Sounds ^[9,10]	1	*1 ^[1]	*2 ^[5]	*1 ^[5]	-	*[8]	*1	-	*1 ^[6, 12]	*1 ^[6, 12]	*1 ^[7]

[1] See B3.D for Mate computations and COI formatting
 [2] See B3.F for Engineer computations and COI formatting
 [3] See B3.I for Federal Pilotage
 [4] See B3.L for Radio Officers and GMDSS
 [5] See B4.D for Deck Department Ratings
 [6] See B4.E for Engine Department Ratings
 [7] See 46 CFR 15.860 for Tankermen
 [8] See 46 CFR 15.404(e) and (g) for Lifeboatmen. See also B2.B.2.f for general discussion.
 [9] Except Great Lakes
 [10] 12-Hour Operation
 [11] See Table 15.860(a)(2) for Master, Chief Mate, Chief Engineer and First Asst. Engineer on tankships certificated for voyages beyond the Boundary Line.
 [12] See B6.A.3.b(4)(d)&(e) for Issuance of COI with reduced manning based on automated engineering systems.
 [13] Steam propulsion
 * Denotes variable

PART B: VESSEL MANNING**CHAPTER 2: SAMPLE VESSEL MANNING SCALES**3. Variables.a. Work Hour Limits. (2014)

46 U.S.C. 8104(n) imposes maximum work hour limits for credentialed individuals and seamen on tankers. All tankers must ensure compliance with this provision.

b. Mates. (2014)

The number of credentialed mates required specifically by statute or regulation on oceangoing or coastwise vessels generally depends on the gross tonnage of the vessel (see 46 U.S.C. 8301 and 46 CFR 15.810). The work hour limitations may necessitate an additional mate be assigned to prevent the chief mate from exceeding limits due to cargo handling responsibilities.

c. Able Seamen (ABs). (2014)

Depending on the size and operation of a vessel and its needs for safe navigation, this number may vary. On certain vessels, sixty-five percent of unlicensed deck crew must be ABs (see 46 U.S.C. 8702, 46 CFR 15.840, and Chapter B4).

d. Ordinary Seamen.

This number will vary in proportion to the total deck crew.

e. ABs And Ordinary Seamen.

On oceangoing and coastwise vessels over 100 GRT, the number of ABs and ordinary seamen carried must be sufficient for the watch provisions of 46 U.S.C. 8104 and 46 CFR 15.705. Deckhands may be permitted on vessels restricted to inland routes.

f. Certificated Lifeboatmen.

The number of certificated lifeboatmen must be separately stated on the COI. The number will vary depending on the lifesaving equipment requirements for each vessel.

g. Credentialed Engineers. (2014)

See Chapter B3 of this Volume.

h. QMED (Firemen/Watertenders And Oilers). (2014)

The number and specific ratings will vary based on the number and location of boilers, type of fuel, number of furnaces, arrangement of machinery spaces, type and amount of automation, and, for oceangoing, coastwise, and Great Lakes vessels, the watch provisions of 46 U.S.C. 8104. In the case of motor vessels, no firemen/watertenders are normally required. Vessels operating exclusively on river routes are not required to carry credentialed personnel (see 46 U.S.C. 8701 and 8702), but it is appropriate to include the ratings by name on the COI followed by "NC" (Not Credentialed). Refer to Chapter B4 also.

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As discussed in 46 CFR 15.817 every person in the required complement of deck officers, including the master, on seagoing vessels equipped with a GMDSS, except those vessels listed in 46 CFR 15.105(f) and (g), must provide evidence of a valid STCW endorsement as GMDSS radio operator. One of the operators must be designated by the vessel's master as assigned to communicate during a distress situation. Vessels voluntarily relying on the at-sea maintenance provision of the GMDSS must have onboard a licensed GMDSS Radio Maintainer. Vessels without GMDSS will still require radio officers as determined by the FCC.

j. Tankermen. (2014, 2017)

The OCMI enters, on the COI issued to each manned tank vessel subject to the regulations in 46 CFR, the number of crewmembers required to hold valid merchant mariners' documents or MMCs with the proper tankerman endorsement. Title 46 CFR, Table 15.860(a)(1) provides the minimal requirements for tankermen aboard manned tank vessels; Table 15.860(a)(2) provides the tankerman endorsements required for personnel aboard tankships. Generally, tankermen are required aboard all vessels to which 46 U.S.C. Chapter 37 applies that carry oil or hazardous materials in bulk as cargo or residue (see 46 U.S.C. 8703). Vessels described in 46 U.S.C. 3702(b) have been provided an alternative in 46 U.S.C. 8703(c). In consideration of footnote 5 in 46 CFR Table 30.01-5(d), vessels covered by Subchapter H (Passenger Vessels) or I (Cargo and Miscellaneous Vessels) of 46 CFR Chapter I, where the principal purpose or use of the vessel is not for the carriage of liquid cargo, may be granted a permit to carry a limited amount of flammable or combustible liquid cargo in bulk. The portion of the vessel used for the carriage of the flammable or combustible liquid cargo must meet the requirements of Subchapter D (Tank Vessels) in addition to the requirements of Subchapter H (Passenger Vessels) or I (Cargo and Miscellaneous Vessels). As indicated in 46 CFR 31.15-1, this includes the applicable manning provisions relating to tankermen endorsements required for personnel aboard tank vessels.

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F. Mechanically-Propelled Cargo/Tank Vessels Under 100 GRT. (2014)

1. Sample Scales. (2017)

Route	Master	Mate	Able Seamen	Ordinary Seamen	Radio Officers	Deckhands	Certificated Lifeboatmen	Chief Engineer	Assistant Engineer	QMFD. (Fireman/Watertender)	QMFD.(Officers)	Tankermen
General Operations	1 ^[3]	1 ^[3]	-	-	-	*2 ^[2]	-	-	-	-	-	*2 ^[1]
12-Hour Operation	1 ^[3]	-	-	-	-	*1 ^[2,4]	-	-	-	-	-	*1 ^[1]

- [1] See 46 CFR 15.860 for Tankermen
- [2] See B4.B.1. for additional discussion on the impact of international conventions on certain vessels employing deckhands.
- [3] See B3.I for Federal Pilotage
- [4] Not credentialed
- * Denotes variable

2. Variables.

a. Work Hour Limits. (2014)

46 U.S.C. 8104(n) imposes maximum work hour limits for credentialed individuals and seamen on tankers. The person in charge of transfer operations on tank vessels with a cargo capacity of 250 barrels or more must be a credentialed engineer, pilot, or master/mate authorized for service on vessels of more than 200 GRT (33 CFR 155.710(a)). The number of credentialed officers required must account for this additional responsibility. The work hour limits prevail over another statute which may allow a specific number of designated crew.

b. Deckhands.

Due to the number of variables in the operation of this type of vessel, the specific deckhand requirements are left to the discretion of the certificating OCMI.

c. Tankermen. (2014, 2017)

The OCMI enters, on the COI issued to each manned tank vessel subject to the regulations in 46 CFR, the number of crewmembers required to hold valid MMCs with the proper tankerman endorsement. Title 46 CFR, Table 15.860(a)(1) provides the minimal requirements for tankermen aboard manned tank vessels; Table 15.860(a)(2) provides the tankerman endorsements required for personnel aboard tankships. Generally, tankermen are required aboard all vessels to which 46 U.S.C. Chapter 37 applies that carry oil or hazardous materials in bulk as cargo or residue (see 46 U.S.C. 8703). Vessels described in 46 U.S.C. 3702(b) have been provided an alternative in 46 U.S.C. 8703(c). In consideration of footnote 5 in 46 CFR Table

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30.01-5(d), vessels covered by Subchapter H (Passenger Vessels) or I (Cargo and Miscellaneous Vessels) of 46 CFR Chapter I, where the principal purpose or use of the vessel is not for the carriage of liquid cargo, may be granted a permit to carry a limited amount of flammable or combustible liquid cargo in bulk. The portion of the vessel used for the carriage of the flammable or combustible liquid cargo must meet the requirements of Subchapter D (Tank Vessels) in addition to the requirements of Subchapter H (Passenger Vessels) or I (Cargo and Miscellaneous Vessels). As indicated in 46 CFR 31.15-1, this includes the applicable manning provisions relating to tankermen endorsements required for personnel aboard tank vessels.

G. Seagoing Motor Towing Vessels (> 300 GRT) And Integrated Tug-Barges (ITBs) [Refer to NVIC 2-81, as amended]. (2014, 2017)

1. Seagoing Motor Towing Vessels (> 300 GRT) And Dual-Mode Integrated Tug-Barges (ITBs) [commonly referred to as Articulated Tug-Barges (ATBs)].

Seagoing Motor Towing Vessels (> 300 GRT) are subject to the provisions of 46 U.S.C. 8101, 8104, 8301 (and, depending upon the size or route, 46 U.S.C. 8304, 8701, and 8702). It should be noted that the number of mates required by 46 U.S.C. 8301 must be read as complementary to, not dependent upon, the watch provisions of 46 U.S.C. 8104 (see Chief Counsel opinion #9786 in Law Bulletin #368, October 1966, cited in Marine Laws; Navigation and Safety, Volume 1, Edition 2, by F. Arzt, published 1963, p. 214). Should the voyage equal or exceed 600 miles, the master must also be in a watchstanding status.

Route	Master	Mate	Able Seamen	Ordinary Seamen	Radio Officers	Deckhands	Certificated Lifeboatmen	Chief Engineer	Assistant Engineer	QMED (Fireman/Water tender)	QMED (Officers)	Tankermen
General Operations	1 ^[2,4]	*2 ^[1,2,4]	*4 ^[6]	*2 ^[6]	*[5]	-	*[8]	1	*2 ^[3, 9]	-	*3 ^[7, 9]	-

[1] See B3.D for Mate computations and COI formatting
 [2] See B3.G for Towing Endorsements
 [3] See B3.F for Engineer computations and COI formatting
 [4] See B3.I for Federal Pilotage
 [5] See B3.L for Radio Officers and GMDSS
 [6] See B4.D for Deck Department Ratings
 [7] See B4.E for Engine Department Ratings
 [8] See 46 CFR 15.404(e) and (g) for Lifeboatmen. See also B2.B.2.f for general discussion.
 [9] See B6.A.3.b(4)(d)&(e) for Issuance of COI with reduced manning based on automated engineering systems.
 * Denotes variable

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NOTE 1: In many cases Articulated Tug-Barges (ATBs) are treated as two separate units (non integral). If the tug of a dual-mode unit is a seagoing motor vessel (> 300 GRT) then paragraph G.1 is applicable. If the tug of a dual-mode unit is not, then refer to paragraph B7.B. If the unit is push-mode, refer to paragraph G.2 below. For Subchapter M towing vessels see paragraph B2.W. (2014, 2017)

NOTE 2: For additional information concerning the conditional occupancy of unmanned barges forming part of an ATB combination, see CG-CVC Policy Letter 16-04. (2017)

2. Push-Mode ITBs. (2017)

Inspected push-mode ITBs are subject to the provisions of 46 U.S.C. Chapter 37 (if applicable), 8101, 8104, 8301, 8303, 8304, 8701, and 8702. As statutory and regulatory requirements for push-mode ITBs are based on the aggregate tonnage of the combination, virtually all vessels of this class will equal or exceed 1,600 GRT.

Route	Master	Mate	Able Seamen	Ordinary Seamen	Radio Officers	Deckhands	Certificated Lifeboatmen	Chief Engineer	Assistant Engineer	QMED (Fireman/Water tender)	QMED (Oilers)	Tankermen
General Operations	1 ^[2,4]	*3 ^[1,2,4]	*6 ^[6]	-	*[5]	-	*[9]	1	*2 ^[3, 10]	-	*3 ^[7, 10]	*3 ^[8]

- [1] See B3.D for Mate computations and COI formatting
 - [2] See B3.G for Towing Endorsements
 - [3] See B3.F for Engineer computations and COI formatting
 - [4] See B3.I for Federal Pilotage
 - [5] See B3.L for Radio Officers and GMDSS
 - [6] See B4.D for Deck Department Ratings
 - [7] See B4.E for Engine Department Ratings
 - [8] See 46 CFR 15.860 for Tankermen
 - [9] See 46 CFR 15.404(e) and (g) for Lifeboatmen. See also B2.B.2.f for general discussion.
 - [10] See B6.A.3.b(4)(d)&(e) for Issuance of COI with reduced manning based on automated engineering systems.
- * Denotes variable

3. Variables.

a. First Class Pilot.

Master and mates must have FCP endorsements when navigating exclusively on the Great Lakes. In addition, when navigating on designated waters, the vessel must have a United States or Canadian registered pilot for the route being navigated. (46 U.S.C. 9302)

b. Mates. (2014)

If the gross tonnage of the tug in a Dual-Mode ITB or the combined tonnage of the Push-Mode ITB exceed 1,000 GRT then three mates are required on voyages of 400 miles or more (46 U.S.C. 8301).

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- c. Engineers. (2014)
Most of these vessels are highly automated and the manning levels indicated may be reduced. Refer to Chapter B6.
- d. Able Seamen (ABs). (2014)
On oceangoing and Great Lakes vessels, the number of ABs and ordinary seamen carried must be sufficient for the watch provisions of 46 U.S.C. 8104 and 46 CFR 15.705. Two specially trained ordinary seaman may be substituted for a maximum of two able seamen. However, the provisions of 46 U.S.C. 8702(b) shall be met. See Chapter B4.
- e. GMDSS Radio Operators. (2014)
As discussed in 46 CFR 15.817 every person in the required complement of deck officers, including the master, on seagoing vessels equipped with a GMDSS, except those vessels listed in 46 CFR 15.105(f) and (g), must provide evidence of a valid STCW endorsement as GMDSS radio operator. One of the operators must be designated by the vessel's master as assigned to communicate during a distress situation. Vessels voluntarily relying on the at-sea maintenance provision of the GMDSS must have onboard a licensed GMDSS Radio Maintainer. Vessels without GMDSS will still require radio officers as determined by the FCC.
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H. Cargo And Miscellaneous Barges.

1. Seagoing Barges. (2017)

a. General.

The determination as to whether or not a seagoing barge must be manned shall be made by the OCMI (see 46 CFR 15.801). These vessels must comply with the watch provisions of 46 U.S.C. 8104 when the manning levels prescribed are based on safety considerations. In this regard, the duties of riding personnel should include periodic checks of the towing gear, security of cargo, navigation lights, etc. These are safety-oriented functions amenable to a watch routine, as opposed to maintenance functions such as painting.

b. OCMI's Evaluation.

Should the OCMI decide that safety is the primary task of the riding crew, the number of personnel in the deck department shall be sufficient to meet the watch system requirements of 46 U.S.C. 8104 (two watches for voyages of less than 600 nautical miles, three watches for voyages of 600 nautical miles or more). In all such cases, the deck crew must be composed of at least 65 percent ABs, as required by 46 U.S.C. 8702.

Route	Master	Mate	Able Seamen	Ordinary Seamen	Radio Officers	Deckhands	Certificated Lifeboatmen	Chief Engineer	Assistant Engineer	QMED. (Fireman/Watertender)	QMED. (Others)	Tankermen
Voyages of Less than 600 NM ^[3]	-	-	2 ^[1,2]	-	-	-	-	-	-	-	-	_[2]
Voyages of 600 NM or More ^[3]	-	-	2 ^[1,2]	1 ^[1]	-	-	-	-	-	-	-	_[2]
<p>[1] See B4.D for Deck Department Ratings [2] One of the crew must hold an appropriate tankerman endorsement (aboard tank barges only). [3] Other persons may be permitted, depending on the berthing accommodations and lifesaving devices available aboard the barge.</p>												

2. Dump Scows And Non-Self-Propelled Harbor Dredges, And Barges Changing Places Of Employment Beyond The Baseline.

a. Required Manning.

Certain barges may be unmanned if so authorized by the OCMI. However, if a crew is required by the OCMI:

PART B: VESSEL MANNING**CHAPTER 2: SAMPLE VESSEL MANNING SCALES**(1) Crewmembers. (2014)

All crewmembers must possess a merchant mariner credential (MMC) and be divided among required watches.

(2) Unlicensed Deck Crew. (2014)

Sixty-five percent of the deck department, exclusive of credentialed officers personnel, must be ABs.

b. Permitted Manning.

When the OCMI does not deem it necessary to require a crew on subject barges, a crew may still be permitted, and in such cases:

(1) Maintenance Persons.

Barges may carry a person or persons as maintenance men with no duties connected with the navigation of the vessel. A sample endorsement that may be used on the COI:

CERTIFICATED WITHOUT A NAVIGATING CREW. THE VESSEL MAY CARRY ONE PERSON AS MAINTENANCE MAN AND OPERATOR OF THE DUMPING MECHANISM, WITH NO DUTIES CONNECTED WITH THE NAVIGATION OF THE VESSEL.

(2) Citizenship.

Seventy-five percent of the personnel of this "permitted" crew must be U.S. citizens; and

(3) MMC Requirement. (2014)

All crewmembers must be in possession of MMCs.

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I. Public Vessels. (2017)

Reference MSM Volume II, Section B Chapter 5 as well as any applicable interagency agreement (MOU/MOA) for general policy regarding Public Vessels.

1. Army Corps Of Engineers (USACE) Vessels. (2014, 2017)

The manning requirements for inspected USACE vessels are stated on the COI, in the same manner as for other inspected vessels. Inspected USACE dredges are certificated for service on various routes and manned accordingly. Hopper dredges often operate for extended periods in protected waters, entering exposed waters only to change operating sites or to dump spoil. It is the USACE's policy to allow as many crewmembers on liberty as feasible when the vessel is engaged in dredging operations of this type. Accordingly, the COI should be endorsed to provide for a minimal crew while the vessel is dredging or dumping. This will permit the vessel to make short voyages, less than two watch rotations, for dumping purposes with a reduced crew aboard. The scales are provided below, as appropriate:

Route	Master	Mate	Able Seamen	Ordinary Seamen	Radio Officers	Deckhands	Certificated Lifeboatmen	Chief Engineer	Assistant Engineer	QMED (Fireman/Watertender) ⁹	QMED (Others)	Tankermen
Great Lakes	1	1 ^[1]	2 ^[4]	1 ^[4]	* ^[3]	-	* ^[6]	1	*1 ^[2, 8]	*1 ^[5, 8]	1 ^[5, 8]	-
Lakes, Bays, Sounds & Rivers ^[7]	1	1 ^[1]	2 ^[4]	1 ^[4]	-	-	* ^[6]	1	*1 ^[2, 8]	*1 ^[5, 8]	1 ^[5, 8]	-

[1] See B3.D for Mate computations and COI formatting
 [2] See B3.F for Engineer computations and COI formatting
 [3] See B3.L for Radio Officers and GMDSS
 [4] See B4.D for Deck Department Ratings
 [5] See B4.E for Engine Department Ratings
 [6] See 46 CFR 15.404(e) and (g) for Lifeboatmen. See also B2.B.2.f for general discussion.
 [7] Except Great Lakes
 [8] See B6.A.3.b(4)(d)&(e) for Issuance of COI with reduced manning based on automated engineering systems.
 [9] Steam propulsion
 * Denotes variable

2. Military Sealift Command (MSC) Vessels. (2014)

These vessels are typically civilian-manned. Manning should be established using Section B2.E as a guide. In addition, the OCMI should consult Volume II, Section B Chapter 5 of this manual and any MOA in force between the USCG and MSC.

3. National Oceanic and Atmospheric Administration (NOAA) Vessels. (2017)

Contact Commandant (CG-CVC-1) for guidance if requested to issue a SMD to a NOAA vessel.

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Generally, state or municipal vessels are not considered "public vessels" as defined by 46 USC 2101 (24). However, vessels owned or operated by state or municipal governments, which are engaged in law enforcement or other government sanctioned public safety activities, may not be required to have a Coast Guard credentialed master by 46 CFR 15.805 because they are not subject to documentation or inspection while engaged in an official capacity. Although, a credential may be a state or municipal condition of employment.

J. School Vessels Operated By The U.S. Merchant Marine/State Maritime Academies (SMA).1. Mechanically-Propelled Vessels Of 100 GRT Or More. (2014, 2017)

The COI shall specify the minimum complement of officers and crew necessary for the safe navigation of a school vessel (46 CFR 167.60-15). Unless expressly authorized and alternatively endorsed, cadets are not authorized to fill any other position required by the COI. Certain academy training programs have been approved under 46 CFR 10.407 to allow cadets to qualify for rating endorsements restricted to service on the academy's training ship. In these specific cases, the cadets will be issued an MMC, endorsed to reflect the rating in accordance with the program approval. In this situation, the cadet's may fill the position of the COI for the academy training ship. Cadets may be at the helm as part of the training ship experience provided they are under the supervision of a qualified member of the crew. Specific information is listed under paragraph b. below. The following guidelines are offered to promote uniform manning levels for school vessels. However, the OCMI shall exercise discretion, within the minimum requirements of the law, in this regard, particularly for smaller vessels operating on limited routes. See MARAD MOU.

a. Credentialed Officers. (2014, 2017)

One master, three mates, one chief engineer, three assistant engineers, and one radio officer, as applicable (see 46 CFR 310.5 concerning state training ships). For vessels operated exclusively in Great Lakes service, a master/first class pilot and first class pilots shall be employed in lieu of mates.

b. Deck Crew. (2017)

The COI should reflect a sufficient number of ABs (generally 3 in total, one available to supplement each watch). Ratings in the deck department are assigned to assist the officer in charge of the watch, to respond in an emergency, and to fulfill associated statutory requirements (see 46 U.S.C. 8702). An officer with a valid MMC, carried in excess of those required by the COI, may fill a rating billet required by the COI so long as there is no conflict with other manning provisions. Cadets may be at the helm as part of the training ship experience provided they are under the supervision of a qualified member of the crew. When deemed appropriate by the master, cadets may be at the wheel. During periods prescribed by 46 USC 8702 the cadet must be under the direct observation of an individual qualified as AB other than the mate (OICNW) on watch.

PART B: VESSEL MANNING**CHAPTER 2: SAMPLE VESSEL MANNING SCALES**c. Engine Room Personnel. (2017)

The COI should reflect a minimum of three firemen/watertenders or oilers (one per watch). Ratings in the engine department are assigned to assist the officer in charge of the engine watch, to respond in an emergency, and to fulfill associated statutory requirements.

d. Lookouts. (2017)

For vessels to which STCW applies an individual serving as lookout must hold an endorsement as Rating Forming Part of a navigational Watch (RFPNW), except for those in training (46 CFR 15.1103(b)).

e. Lifeboatmen. (2014, 2017)

The requirements of 46 CFR 199.100 shall be fully met. Cadets may fill the billets for lifeboatmen, provided they hold an endorsement for lifeboatman and the corresponding STCW endorsement for Proficiency in Survival Craft.

2. School Vessels Under 100 GRT. (2014)

See Chapter B3 of this Volume.

K. Sailing School Vessels. (2014)

Sailing school vessels must operate with properly credentialed and certificated individuals, as required by statutes and regulations. These individuals provide the necessary base of experience to fulfill leadership roles during emergencies, and to otherwise assure the vessel's safe handling.

1. OCMI Considerations.

In determining the manning needed to safely operate the vessel, the OCMI shall take into consideration the vessel's route and specific characteristics, including the number of masts, type of sails, and number of persons needed for evolutions. Vessels equipped with more than one mast must carry a seaman (AB or deckhand, as appropriate) for each mast, and an additional AB for each square-rigged mast. On ketches and yawls where the second mast is used for balancing purposes, the OCMI may waive the additional seaman, if it is believed that the vessel can be operated with a smaller crew.

2. Deck Crew. (2014)

The maximum number of people needed in the deck crew will be figured as noted above, or as required by watchkeeping requirements, whichever is greater. On vessels 100 GRT and above, except those navigating exclusively on rivers or lakes (except the Great Lakes), the unlicensed crew must hold credentials and at least 65 percent must be endorsed as ABs. If propelling machinery is installed aboard seagoing sailing school vessels of 300 GRT or more, a credentialed engineer must be carried. On ocean or coastwise or Great Lakes vessels of 100 GRT or more, the 3-watch standard applies.

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L. Offshore Supply Vessels (OSVs).

1. Sample Scales - OSVs. (2017)

Route	Master ^[12]	Mate ^[12]	Able Seamen ^[12]	Ordinary Seamen	Radio Officers	Deckhands	Certificated Lifeboatmen	Chief Engineer ^[12]	Assistant Engineer ^[12]	QMED. (Fireman/Water tender)	QMED. (Oilers)	Tankermen
<500 GRT/ ≥600 GT Miles ITC ^[13]	1 ^[2,4]	2 ^[1,2,4]	*3 ^[6,7]	-	*[5]	-	*[11]	*1	*2 ^[3, 14]	-	*3 ^[9, 14]	*1 ^[10]
<500 GRT/ <600 Miles GT ITC ^[13]	1 ^[2,4]	1 ^[1,2,4]	*2 ^[6,7]	-	*[5]	-	*[11]	*1	*1 ^[3, 14]	-	*2 ^[9, 14]	*1 ^[10]
≥500 GRT/ ≥600 Miles 6,000 GT ITC	1 ^[2,4]	3 ^[1,2,4]	*3 ^[6,8]	-	*[5]	-	*[11]	*1	*3 ^[3, 14]	-	*3 ^[9, 14]	*1 ^[10]
≥500 GRT/ <600 Miles 6,000 GT ITC	1 ^[2,4]	2 ^[1,2,4]	*3 ^[6,8]	-	*[5]	-	*[11]	*1	*2 ^[3, 14]	-	*2 ^[9, 14]	*1 ^[10]

- [1] See B3.D for Mate computations and COI formatting
- [2] See B3.G for Towing Endorsements
- [3] See B3.F for Engineer computations and COI formatting
- [4] See B3.I for Federal Pilotage
- [5] See B3.L for Radio Officers and GMDSS
- [6] See B4.D for Deck Department Ratings
- [7] AB-OSV
- [8] AB-Limited
- [9] See B4.E for Engine Department Ratings
- [10] See 46 CFR 15.860 for Tankermen
- [11] See 46 CFR 15.404(e) & (g) and 46 CFR 131.420 for Lifeboatmen. See also B2.B.2.f for general discussion.
- [12] See C2.F for Trade Restricted Endorsements
- [13] For OSVs less than 100 GRT, see 46 CFR 15.810(b)(5)
- [14] See B6.A.3.b(4)(d)&(e) for Issuance of COI with reduced manning based on automated engineering systems.
- * Denotes variable

NOTE: See 33 CFR Part 143 Subpart E for Standby Vessel requirements, including manning provisions. (2017)

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2. Sample Scales - Liftboats. (2017)

Route		Master ^[9]	Mate ^[9]	Able Seaman ^[9]	Ordinary Seaman	Radio Officers	Deckhands	Certificated Lifeboatmen	Chief Engineer ^[9]	Assistant Engineer ^[9]	QMED (Fireman/Watertender)	QMED (Officers)	Tankermen
≥100 GRT ^[12]	≥600 Miles	1 ^[3]	2 ^[1,3]	*3 ^[5,6]	-	*[4]	-	*[8]	*1	*2 ^[2, 15]	-	*3 ^[7, 15]	-
≥100 GRT ^[12]	<600 Miles	1 ^[3]	1 ^[1,3]	*2 ^[5,6]	-	*[4]	-	*[8]	*1	*1 ^[2, 15]	-	*2 ^[7, 15]	-
<100 GRT	Oceans, Coastwise or Lakes ^[11] , Bays & Sounds	1 ^[3]	1 ^[1,3]	-	-	*[4]	2 ^[13,14]	*[8]	-	-	-	-	-
<100 GRT ^[10]	Oceans & Coastwise Rescue Boat Required	1 ^[3]	-	-	-	*[4]	2 ^[13,14]	*[8]	-	-	-	-	-
<100 GRT	Lakes ^[11] , Bays & Sounds Rescue Boat Required	1	-	-	-	-	2 ^[13,14]	*[8]	-	-	-	-	-
<100 GRT	Lakes ^[11] , Bays & Sounds No Rescue Boat Required	1	-	-	-	-	1 ^[13,14]	-	-	-	-	-	-

- [1] See B3.D for Mate computations and COI formatting
- [2] See B3.F for Engineer computations and COI formatting
- [3] See B3.I for Federal Pilotage
- [4] See B3.L for Radio Officers and GMDSS
- [5] See B4.D for Deck Department Ratings
- [6] AB-OSV
- [7] See B4.E for Engine Department Ratings
- [8] See 46 CFR 15.404(e) & (g) and 46 CFR 131.420 for Lifeboatmen. See also B2.B.2.f for general discussion.
- [9] See C2.F for Trade Restricted Endorsements
- [10] 12-Hour Operation
- [11] Except Great Lakes
- [12] <500 GRT or 6,000 GT ITC
- [13] See B4.B.1. for additional discussion on the impact of international conventions on certain vessels employing deckhands.
- [14] Not credentialed
- [15] See B6.A.3.b(4)(d)&(e) for Issuance of COI with reduced manning based on automated engineering systems.
- * Denotes variable

NOTE: Liftboats are required to maintain a full crew as required by the COI while operating. Liftboats are considered to be operating both while underway and elevated. (2017)

PART B: VESSEL MANNING**CHAPTER 2: SAMPLE VESSEL MANNING SCALES**3. Variables.a. Engineers. (2014, 2017)

Number of engineering personnel dependent on level of automation. See below. A designated duty engineer (DDE) can serve as a Chief or Assistant Engineer, subject to the restrictions of their endorsement, on vessels of not more than 500 GRT.

- (1) OSVs less than 6,000 GT ITC (500 GRT if no GT ITC): 46 CFR Subchapter L, Part 130 Subpart D, Chapter B6 and NVIC 1-78 (as amended). See also D8(m) Policy Letter 01-2004.
- (2) OSVs of 6,000 GT ITC (500 GRT if no GT ITC): 46 CFR Subchapter F, Parts 61 & 62 and Chapter B6. See also 46 CFR 15.825(c).

b. Tankermen. (2014, 2017)

Generally, tankermen are required aboard all vessels to which 46 U.S.C. Chapter 37 applies that carry oil or hazardous materials in bulk as cargo or residue (see 46 U.S.C. 8703). Vessels described in 46 U.S.C. 3702(b) have been provided an alternative in 46 U.S.C. 8703(c). However, the following are additional factors to be considered with OSVs depending on the quantity and type of materials carried.

- (1) OSVs with a capacity of at least 250 barrels oil or hazardous material in bulk (e.g., oil based drilling mud) within cargo tanks or portable tanks must have a credentialed master, mate, engineer, or pilot as the person in charge of transfer operations.
- (2) OSVs which do not carry oil or hazardous materials in bulk as cargo, but carry fuel within the fuel supply tanks for transfer to an offshore facility may have either a certified tankerman or a credentialed master, mate, pilot or engineer as the person in charge of transfer operations.
- (3) OSVs with a cargo capacity exceeding 20 percent of its deadweight tonnage are considered tankers and must meet the more stringent manning scales in Sections B2.E or B2.F.

c. Able Seamen (ABs). (2014, 2017)

The OCMI may consider allowing specially trained ordinary seaman (OS) meeting the requirements of NVIC 3-83 as substitutes for up to 35 or 50 percent, respectively, of the required ABs on domestic voyages as provided by 46 USC 8702(b)(2) (see Chapter B4). Reference Section B.1.a.(3) of Chapter B4 for additional information concerning the substitution of able seamen with specially trained ordinary seamen on voyages subject to STCW. The OCMI should consider additional personnel for specific activities and operations (e.g., helo, FRAC, number of offshore workers, etc.). In doing so, the OCMI should reference Chapter B1.C - E.

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M. Oil Spill Response Vessels (OSRVs).

1. General. (2017)

It is expected that many OSRVs will be converted Offshore Supply Vessels (OSVs). OSVs manning scales are not considered appropriate for this new class of vessels. OSRVs will require a 24-hour day capability when engaged in spill response. OSRVs are technically tankers, as defined by 46 U.S.C. 2101(38), and therefore are subject to the work hour limitations imposed by 46 U.S.C. 8104(n). Existing automated OSVs being converted to OSRVs shall be reevaluated for a determination of appropriate manning levels. Manning reductions based on automation shall be handled according to existing regulations and policies. The sample scales below are stated for conventional (non-automated) Oil Spill Recovery Vessels in restricted ocean service; vessels limited to inland routes could have reduced manning levels provided work hour limitations are not exceeded. See CG-CVC Policy Letter 12-03 for OSVs as OSRVs and tonnage alternative. Upon request, additional consideration may be afforded for reduced operational manning during the initial response operation or a training exercise of less than 16 hours in duration.

2. Sample Scales. (2014, 2017)

Route	Master	Mate	Able Seamen	Ordinary Seamen	Radio Officers	Deckhands	Certificated Lifeboatmen	Chief Engineer	Assistant Engineer	QMED (Fireman/Watertender)	QMED (Others)	Tankermen
≥500 GRT	These vessels should be manned similarly to a tank vessel (see Section B2.E.1).											
<500 ≥100 GRT	1 ^[3]	*2 ^[1,3]	*3 ^[5]	-	*[4]	-	*[8]	*1	*2 ^[2, 11]	-	*3 ^[6, 11]	*2 ^[7]
<100 GRT	1 ^[3]	*1 ^[1,3]	-	-	*[4]	2 ^[9,10]	-	-	-	-	-	*2 ^[7]

[1] See B3.D for Mate computations and COI formatting
 [2] See B3.F for Engineer computations and COI formatting
 [3] See B3.I for Federal Pilotage
 [4] See B3.L for Radio Officers and GMDSS
 [5] See B4.D for Deck Department Ratings
 [6] See B4.E for Engine Department Ratings
 [7] See 46 CFR 15.860 for Tankermen
 [8] See 46 CFR 15.404(e) and (g) for Lifeboatmen. See also B2.B.2.f for general discussion.
 [9] See B4.B.1. for additional discussion on the impact of international conventions on certain vessels employing deckhands.
 [10] Not credentialed
 [11] See B6.A.3.b(4)(d)&(e) for Issuance of COI with reduced manning based on automated engineering systems.
 * Denotes variable

PART B: VESSEL MANNING**CHAPTER 2: SAMPLE VESSEL MANNING SCALES**3. Variables.a. Mates.

At least two mates must be assigned on a seagoing inspected OSRV vessel when engaged in an operation over 12 hours in duration. One mate is required when engaged in an operation of less than 12 hours. The watches may be divided into at least two watches when engaged in an operation less than 12 hours in duration. The above scales presume that the master will also stand watches; if the overall responsibilities of the master preclude watchstanding, then an additional mate is required for vessels operating in excess of 12 hours.

b. Able Seamen (ABs). (2014)

At least 65 percent of the unlicensed deck crew on seagoing vessels over 100 GRT must hold endorsements for AB. Endorsement as AB-Special is the minimum AB qualification allowed by 46 U.S.C. 7312. The OCMI may consider allowing specially trained ordinary seaman (OS) meeting the requirements of NVIC 3-83 as substitutes for up to 35 percent of the required ABs on domestic voyages. Reference Section D.1. of Chapter B4 for additional information concerning the substitution of able seamen with specially trained ordinary seamen. On vessels engaged on voyages of less than 12 hours, 2 ABs may be permitted since the vessel may operate on a two watch schedule. However, the OCMI must consider the ability of the reduced crew to remain within the work hour limits of 46 U.S.C. 8104(n). The OCMI should assess the need for an additional number of ABs to be included in the required manning level. This may be required for vessels operating in an area routinely subject to inclement weather which requires additional lookouts to maintain an adequate watch, or on vessels requiring dedicated helmsmen to be assigned.

c. Engineers. (2014)

All OSRVs propelled by machinery of at least 300 GRT, regardless of route, require a credentialed engineer. Seagoing self-propelled inspected vessels of at least 200 GRT require a credentialed chief engineer, and other credentialed engineers as may be necessary to stand watches. Manning requirements for licensed engineers are found in 46 CFR 15.820 and 15.825. The scales represent a three-watch manning schedule for non-automated engineering propulsion plants. Depending on the level of sophistication of installed engineering automated control and monitoring systems, the credentialed engineering officers and ratings may be reduced based on the system's review and approval in accordance with 46 CFR Part 62 and other existing policy.

d. Tankermen. (2014, 2017)

Tankermen are required aboard these vessels whenever any transfer operations are conducted. At least two additional tankermen separate from the navigating crew are considered necessary for these operations to comply with the work hour limitations addressed in paragraph 1 of this Section. These additional tankermen might be provided as part of the incident response crew, or the owner may opt to have the additional qualified tankermen as part of the permanent crew. An individual holding

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an endorsement as restricted tankerman under 46 CFR 13.111 may be utilized to satisfy the tankerman requirement, subject to any restrictions on the tankerman endorsement. Tankermen are not, necessarily, required during product recovery.

N. Oil Spill Response Barges (OSRBs).

1. Manning. (2014)

Title 46, United States Code, Chapter 87 allows the Secretary to prescribe the individuals serving on board an OSRV, (including an OSRB) who must hold a credential. Some OSRBs have been outfitted with skimming equipment having the capability to recover and store recovered oily liquids in bulk. This necessitates placing persons onboard the vessel for the safe operation of the barge and its machinery/equipment. Those persons who are assigned to the vessel, engage in the business of the vessel, and are part of the routine underway operations of the vessel are required to hold a valid credential. The number of persons required is determined by the cognizant Officer-in-Charge, Marine Inspection using the policy found in this section. When the vessel is in operation for training exercises and drills, and the evolution is less than 12 hours in duration the persons associated with the safe operation of the vessel may be reduced.

a. ABs and Ordinary Seaman. (2014)

At least 65 percent of the unlicensed deck crew on seagoing vessels over 100 GRT must hold endorsements for AB. The alternatives for ABs as found in the provision of Section B2.M.3.b. may be employed by the OCMI. The OCMI must consider the vessel's operation, work hour considerations and prevailing weather conditions when determining the proper number of deck crew.

b. Watchmen.

When the OSRB is outfitted with crew shelters/quarters and industrial workers have access to the vessel, a suitable number of watchmen shall be provided but will not be less than two.

c. Certificated Lifeboatmen

The number of certificated lifeboatmen must be separately stated on the COI. This number will vary depending on the lifeboat and life raft requirements for each vessel, in accordance with the regulations

d. Tankermen/Persons-In-Charge.

When required, these crewmembers shall be separate from the deck crew in order to comply with the work hour limitations. The vessel's COI should reflect this condition of operation.

2. Crew Quarters and Shelters.

The construction and structural fire protection standards for accommodations should meet the requirements found in 46 CFR, Subchapter D.

PART B: VESSEL MANNING**CHAPTER 2: SAMPLE VESSEL MANNING SCALES**3. Persons in Addition to the Crew (PACs). (2014, 2017)

To sustain operations during oil spill response, workers will be present aboard the OSRB to recover oil, but will necessarily be part of the underway operating crew assigned to the vessel. These workers are deemed industrial workers and are not required to hold an MMC as they are on board the vessel for the sole purpose of carrying out the industrial business or function of the vessel. These personnel will need to have access to the vessel as a work and training platform. For response operations, training purposes, and drills the total persons carried shall be determined by the OCMI and, as with permissive crewing, reflected in the vessel's Routes Permitted and Conditions of Operation section of the COI. These persons may not exceed the total capacity of primary lifesaving equipment on board the vessel, nor shall they adversely impact the vessel's stability. Unless the barge is specifically designed and constructed for the carriage of personnel, the following applies: On all voyages beyond the boundary line, all persons shall be transported on the attending vessel and transferred to the OSRB from the attending vessel upon arrival at the training/response site. All personnel transfers shall be conducted when the attending vessel master deems conditions safe for transfers. Adequate primary lifesaving equipment shall be on board the vessel for all persons carried. The OSRB will provide no overnight accommodations for the PACs, unless the provisions in paragraph B2.N.2. are met.

4. Attending Vessel.

When the OSRB is underway with persons onboard, engaged in oil spill operations, drills, or training exercises, a vessel must be in attendance at all times. The attending vessel must be capable of receiving all persons aboard in the event of an emergency evacuation, and shall be equipped as a standby vessel in accordance with 33 CFR 143.405. The attending vessel does not have to meet the multiple propellers or propulsion devices requirement of 33 CFR 143.405 provided the vessel can demonstrate it has adequate maneuvering capabilities.

5. Lightering and Discharges to Shoreside Reception Facility.

The OSRB is generally a tank barge that changed service to Oil Spill Recovery Barge. During an oil response, it is likely that these barges may be employed as lightering barges receiving recovered oil from other oil recovery vessels and then discharging their cargo to a shore facility. The person-in-charge of all oily liquid transfers shall have a tankerman endorsement for the grade(s) of cargo transferred that is appropriate for the vessel. A restricted tankerman endorsement in accordance with 46 CFR 13.111 is acceptable for these vessels. When engaged in lightering or oily liquid transfers, a minimum of two (2) persons-in-charge shall be on board the vessel. When lightering/transfer operations are less than 12 hours in duration only one person-in-charge is required. The persons-in-charge are only required during transfer operations and not for recovering oil. This requirement is an operational restriction and should be placed in the operating details of the COI. The following verbiage shall be used on the OSRB COI:

WHEN TRANSFERRING RECOVERED OILY LIQUIDS OR OIL TO OR FROM ANOTHER VESSEL OR FACILITY, A TANKERMAN-PERSON-IN-CHARGE SHALL BE PROVIDED."

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O. Mobile Offshore Drilling Units (MODUs).

1. Sample Scales. (2014, 2017)

<u>Operating Mode</u>	<u>Master</u>	<u>Mate</u>	<u>Able Seamen</u>	<u>Ordinary Seamen</u>	<u>Radio Officers</u>	<u>Certificated Lifeboatmen</u>	<u>Chief Engineer</u>	<u>Assistant Engineer</u>	<u>QMED (Oilers)</u>
<u>STCW Certification Reference</u>	<u>Master - II/2</u>	<u>II/2 - Chief Mate II/1 - OIC/NW</u>	<u>II/4 - RFP/NW II/5 - AB Deck</u>		<u>IV/2 - GMDSS</u>	<u>VI/2 - Survival Craft & Rescue Boats</u>	<u>III/2 - Chief Eng</u>	<u>III/2 - 2nd Eng III/1 - OICEW</u>	<u>III/4 - RFPEW</u>
Drillships (Moored On Location w/anchors placed in drilling configuration)	1 ^[3]	1	2 ^[13]	1 ^[13]	* ^[4]	* ^[15]	1	*1 ^[6, 18]	*2 ^[14, 18]
Drillships Underway Voyage >72 Hours	1	3 ^[5]	*6 ^[13]	*3 ^[13]	* ^[4]	* ^[15]	1	*3 ^[6, 18]	*3 ^[14, 18]
Drillships Underway Voyage >16 ≤72 Hours	1	1 ^[5]	4 ^[13]	*2 ^[13]	* ^[4]	* ^[15]	1	*2 ^[6, 18]	*3 ^[14, 18]
Drillships Underway Voyage ≤16 Hours ^[7]	1	1 ^[5]	4 ^[13]	*2 ^[13]	* ^[4]	* ^[15]	1	*1 ^[6, 18]	*2 ^[14, 18]
Self-Propelled Surface Units ^[1] Underway Voyage >72 Hours	1 ^[3]	3 ^[5,8,9]	*6 ^[13]	*3 ^[13]	* ^[4]	* ^[15]	1	*3 ^[6, 18]	*3 ^[14, 18]
Self-Propelled Surface Units ^[1] Underway Voyage >16 ≤72 Hours	1 ^[3]	2 ^[5,9]	4 ^[13]	*2 ^[13]	* ^[4]	* ^[15]	*1	*2 ^[6, 18]	*2 ^[14, 18]
Self-Propelled Surface Units ^[1] Underway Voyage ≤16 Hours ^[7]	1 ^[3]	2 ^[5,9]	4 ^[13]	*2 ^[13]	* ^[4]	* ^[15]	*1	*1 ^[6, 18]	*2 ^[14, 18]
Self-Propelled Surface Units ^[1] On Location or Under Tow	1 ^[3]	1 ^[5,9] & 2 ^[10]	2 ^[13]	1 ^[13]	* ^[4]	* ^[15]	1	*1 ^[6, 18]	*2 ^[14, 18]
STCW Not Applicable									
Non-Self-Propelled MODUs ^[2] On Location or Under Tow	1 ^[11]	1 ^[12] & 2 ^[10]	2 ^[13, 17]	1 ^[13]	-	* ^[15]	-	-	-

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Non-Self-Propelled Bottom Bearing Units	On Location or Under Tow	1 ^[11]	1 ^[12] & 2 ^[10, 16]	2 ^[13, 17]	1 ^[13]	-	* ^[15]	-	-	-
<p>[1] Other than Drillships [2] Excluding Bottom Bearing Units [3] Master with OIM Endorsement [4] If required by the FCC. See B3.L for Radio Officers and GMDSS [5] See B3.D for Mate computations and COI formatting [6] See B3.F for Engineer computations and COI formatting [7] When engaged on a voyage of not more than 8 hours, the crew may be reduced by 2 able seamen, 1 ordinary seaman, and 1 QMED (oiler). [8] Chief Mate with BS or BCO Endorsement [9] Mates with BCO Endorsement [10] Ballast Control Operator [11] Offshore Installation Manager [12] Barge Supervisor [13] See B4.D for Deck Department Ratings [14] See B4.E. for Engine Department Ratings [15] See 46 CFR 15.404(e) and (g) for Lifeboatmen. See also B2.B.2.f for general discussion. [16] One of the two BCOs may be eliminated when in operation on location. [17] ABs are required on seagoing non-self-propelled vessels in accordance with 46 U.S.C. 8702. ABs may be AB-special [46 U.S.C. 7312(c)(1)]. [18] See B6.A.3.b(4)(d)&(e) for Issuance of COI with reduced manning based on automated engineering systems. * Denotes variable</p>										

2. Variables. (2017)

- a. Offshore Installation Manager (OIM), Barge Supervisor (BS), And Ballast Control Operator (BCO).
 Special MODU manning requirements may be found in 46 CFR 15.520 and 15.810.

- b. ABs And Ordinary Seamen. (2014)
 On ocean or coastwise routes, the number of ABs and ordinary seamen carried must be sufficient for the watch system provisions of 46 U.S.C. 8104 and 46 CFR 15.840. In addition, the OCMI must ensure sufficient lifeboatmen will be provided through manning levels established (46 CFR 15.845).

- c. Engineers. (2014)
 Individuals holding MODU engineer credentials may be substituted for the required credentialed engineers at the discretion of the OCMI.

3. Manning of Non-self Propelled Floating Outer Continental Shelf (OCS) Facilities. (2017)
See MSM Volume II Section G, Chapter 4.L.

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NOTE: MODUs and other vessels operating solely with a dynamic positioning system are considered self-propelled motor vessels underway (even with a non-load bearing physical connection to the ocean bottom). Consequently, the STCW Convention watchkeeping and hours of rest provisions as well as the training and certification requirements apply beyond the Boundary Line established by 46 CFR Part 7. See also 79 FR 70944 [November 28, 2014] and MSM Volume II Section G. (2017)

P. Dredges. (2014, 2017)

Commercial dredges are subject to inspection and manning requirements either because they are propelled by steam or they are seagoing motor vessels. As such vessels are generally of 300 GRT or more, the standards in Section B2.E of this Volume should be used to establish manning scales for such vessels. Section B1.C also addresses specific factors to be considered in manning determinations. With regard to Section B2.X, dredges certificated for oceans routes, engaged in domestic service and not on a international voyage, may substitute an OICNW (Reg II/1) for the Chief Mate (Reg II/2) and an OICEW (Reg II/1) for the Second Engineer (U.S. 1st A/E) (Reg III/2).

Due to the diverse nature of dredging operations, COIs can be structured such that appropriate manning is specified for multiple voyage lengths and types under the Conditions of Operation. The following endorsement may be used when appropriate: "When engaged in dredging operations on lakes, bays, sounds, or rivers exclusively, or engaged on a coastwise voyage of less than 400 miles for the purpose of dumping dredge spoil, credentialed officers and certain crewmembers may be divided into at least two watches. The minimum manning shall be as follows:

Route	Master	Mate	Able Seamen	Ordinary Seamen	Radio Officers	Deckhands	Certificated Lifeboatmen	Chief Engineer	Assistant Engineer	QMED (Fireman/Water tender)	QMED (Oilers)	Tankermen
General Operations	1	1 ^[1]	2 ^[3]	1 ^[3]	-	-	-	1	1 ^[2, 5]	-	2 ^[4, 5]	-

- [1] See B3.D for Mate computations and COI formatting
- [2] See B3.F for Engineer computations and COI formatting
- [3] See B4.D for Deck Department Ratings
- [4] See B4.E for Engine Department Ratings
- [5] See B6.A.3.b(4)(d)&(e) for Issuance of COI with reduced manning based on automated engineering systems.
- * Denotes variable

NOTE 1: Vessels operating exclusively on river routes are not required to carry credentialed personnel (see 46 U.S.C. 8701 and 8702). In such cases, it is appropriate to include the ratings by name on the COI followed by "NC" (Not Credentialed). (2014)

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NOTE 2: For a distance of less than 400 miles, dredging operations can include those movements necessary to obtain fuel, stores, and for minor repairs. (2014)

Q. Nuclear-Powered Vessels. (2014)

Any request for a manning scale for a nuclear-powered vessel shall be forwarded to Commandant (CG-CVC).

R. Motor-Propelled Oceangoing Yachts.

1. Required Manning. (2014, 2017)

The statutory authority regarding the manning of seagoing motor-propelled yachts of 300 GRT or more is based on a combined reading of 46 U.S.C. 8101, 8301, and 8304. When certificating the vessel, consideration shall be given to manning, which includes the following:

Route	Master	Mate	Able Seamen	Ordinary Seamen	Radio Officers	Deckhands	Certificated Lifeboatmen	Chief Engineer	Assistant Engineer	QMED. (Fireman/Water tender)	QMED.(Oilers)	Tankermen
General Operations	1 ^[5]	*1 ^[1,5]	*[3]	*[3]	-	-	-	*1	*1 ^[2, 6]	-	*[4, 6]	-

[1] See B3.D for Mate computations and COI formatting
 [2] See B3.F for Engineer computations and COI formatting
 [3] See B4.D for Deck Department Ratings
 [4] See B4.E for Engine Department Ratings
 [5] See B3.I for Federal Pilotage
 [6] See B6.A.3.b(4)(d)&(e) for Issuance of COI with reduced manning based on automated engineering systems.
 * Denotes variable

S. Hydrofoils And Air Cushion Vehicles (ACVs).

1. Under 100 GRT - Introduction. (2017)

The use of hydrofoils and ACVs in the U.S. has been limited to date. There are no regulations specifically addressing these vessels, and the Coast Guard's involvement has been only with those craft used as small passenger vessels. Until these vessels become more widely used, specific standards for operators cannot be established. The ultimate decision as to whether an applicant has adequate training and possesses sufficient knowledge and skill to operate a hydrofoil or ACV must rest with the OCMI. However, the following minimal requirements shall be applied:

a. Required Credential. (2014)

Possession of a credential endorsed as master for conventional passenger vessels of commensurate tonnage and, for vessels subject to the High-Speed Craft (HSC) Code, a type rating endorsement;

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- b. Required Course. (2014)
Successful completion of a course conducted by either the manufacturer or owner of the vessel, acceptable to the OCMI or approved by the National Maritime Center (NMC) for a HSC type rating endorsement; and
- c. Operating Experience.
Completion of a period of operating experience, as required by the OCMI. For the first vessel of a particular type, the OCMI may make special arrangements for the initial operator to obtain operating experience.
- d. Training Courses. (2014, 2017)
The Coast Guard does not currently provide formal approval of training courses for hydrofoil and ACV operators, other than those that are considered High-Speed Craft under the HSC Code. Although hydrofoils and ACVs may not be built and classed to the High Speed Craft Code, the training required for personnel on a HSC is an appropriate reference. Training should be substantially similar to that prescribed in NVIC 20-14, which superseded NMC Policy Letter 6-01 (although the OCMI's discretion in this regard is not limited). The OCMI's prior review and acceptance of a training course's level of proficiency is appropriate; an inspector may be assigned to participate in or monitor such a course to evaluate its effectiveness.
- e. Manning Standards. (2014, 2017)
A hydrofoil or ACV shall carry two credentialed individuals having radar observer endorsements on their credentials; this arrangement will allow one operator to monitor the radar while the other "cons" the vessel. The number of required deckhands shall be determined by the OCMI according to the size and arrangement of the vessel, its route(s), and its operation; a minimum of four deckhands is envisioned.

NOTE: This manning scale applies only to vessels under 100 GRT, operating up to 12 consecutive hours. Vessels operating for more than 12 hours at a time shall be required to carry another full crew for relief purposes. (2014)

2. Hydrofoils And ACVs 100 GRT And More. (2014, 2017)
Requests relative to personnel qualifications and manning scales for large hydrofoils and ACVs, other than those subject to inspection under 46 U.S.C. 3301, shall be forwarded with full background information to the Commandant (CG-CVC), via the district commander. Insofar as practical, the manning scales for such vessels shall parallel those of conventional vessels of similar trades, routes, and tonnages. Requirements for special training, radar observer endorsements, and two credentialed individuals per deck watch shall apply; unique machinery installations may require special training or engineering personnel.

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The HSC Code requires that the Master and all officers having an operational role on high-speed craft be type rated. In accordance with 46 CFR 11.821, masters, mates and engineers seeking a HSC type-rating endorsement must hold a valid U. S. Coast Guard officer endorsement authorizing service in the appropriate grade, tonnage, horsepower, and route of the vessel(s) and present evidence of successful completion of Coast Guard approved training for which the type rating will be valid. Other members of the crew are required to receive training in accordance with section 18.3 of the HSC Code, but are not required to hold HSC type-rating endorsements (NVIC 20-14).

NOTE: High Speed Craft type-rating endorsements are NOT the same as an STCW endorsement in proficiency in fast rescue boats issued under 46 CFR 12.617. (2017)

1. International High-Speed Craft. (2017)

In accordance with Chapter 18 of the International code of Safety for high-Speed Craft (HSC Code), “the crew compliment shall be such that two officers are on duty in the operating compartment when the craft is underway, one of whom may be the master.”

2. Domestic High-Speed Vessels. (2017)

See NVIC 05-01, CH-1, Guidance for Enhancing the Operational Safety of Domestic High-Speed Vessels.

U. Submersible Vessels.**1. General. (2014)**

Currently, submersibles have only been inspected for service as passenger vessels. However, there are a number of uninspected vessels of this type, including uninspected passenger submersibles (carrying 6 or less passengers), oceanographic research and underwater survey submersibles. Eventually, there may be an expansion of services for this class of vessel which would necessitate inspection, such as its use as an industrial vessel. Coast Guard regulations do not currently address specific credentialing and manning requirements for submersibles. A manning and licensing proposal should be submitted to Commandant (CG-CVC) via the Officer-in-Charge, Marine Inspection (OCMI). This proposal should address the levels of personnel training and qualifications including certifications held, as well as the number of personnel considered necessary for the safe operation of the vessel. The credentialed officers as well as any crewmembers would be required to complete a comprehensive course prescribed by the vessel manufacturer. It is expected the course schedule should be similar to that noted in Section B2.S.2.

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Route	Master	Mate	Able Seamen	Ordinary Seamen	Radio Officers	Deckhands	Certificated Lifeboatmen	Chief Engineer	Assistant Engineer	QMED (Fireman/Water tender)	QMED (Others)	Tankermen
General Operations	1	*1	-	-	-	*[1,2]	-	-	-	-	-	-
[1] Additional deckhands based on number of passengers on board or service requirements. [2] Not credentialed < 100 GRT * Denotes variable												

3. Variables. (2014)

At least two credentialed officers should be provided to ensure the vessel can be safely operated under all conditions. This ensures that at least one other person is capable of taking control of the vessel's navigation should the pilot become incapacitated, and also provides another individual for assisting and directing the passengers and required crew in the event of an emergency.

V. Multi-Service/Route Manning. (2014)

The COI (or SMD/SML) for a multi-service and/or route vessel should be structured such that appropriate manning is specified for each vessel service and voyage length, including any operational limitations. For example, when appropriate a COI (or SMD/SML) may include manning scales for voyages of 600 miles and more as well as voyages of less than 600 miles. Where desired, the company should include in the manning proposal (see Chapter B1). This highest manning level is specified in the 'manning block' and all subordinate levels detailed under the 'routes permitted and conditions of operations' section of the COI.

1. Multi-Service (Certificated) Offshore Supply Vessels. (2014)

The OCMI is responsible for determining acceptable manning levels for vessels inspected in their respective OCMI zones. When a multi-service vessel is not operating as an OSV, it is required to meet the manning requirements of the applicable service. Any vessel operating as a multi-service vessel should have the type of service entered into the vessel's log book or record. Although an official logbook is not required for all OSVs, tank, or cargo and miscellaneous vessels operating in domestic service, 46 CFR Subchapter L requires that an OSV without an official logbook have an unofficial log or record (46 CFR 131.610). This entry should be made each time the vessel changes service. The master is to ensure that the service of the vessel (either OSV, tank, or cargo and miscellaneous) is officially noted in the vessel's logbook or record. This requirement should be entered into the conditions of operation on the vessel's COI. See also D8(m) Policy Letter 09-2001.

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W. Towing Vessels Inspected Under 46 CFR Subchapter M. (2017)

NOTE 1: Application of these manning scales for inspected towing vessels will follow the phase-in schedule of 46 CFR Subchapter M and should be used when issuing the initial COI. Upon the issuance of the initial COI any previous SMD/SML is considered superseded and should be removed from the vessel. (2017)

NOTE 2: Per 46 U.S.C. 8301(a), the minimum number of licensed individuals (i.e., credentialed officers) as specified in 46 U.S.C. 8301 does not apply to towing vessels certificated under 46 CFR Subchapter M as provided in 46 U.S.C. 89. Accordingly, the Coast Guard will generally not apply 46 CFR 15.810(b)(3) to towing vessels inspected under Subchapter M when permitted a two-watch system. The sample manning scales for the minimum number of mariners holding a license or MMC officer endorsement as mate in this section have been modeled on the prevailing watch system as well as the applicable hours of rest/work limitations as provided in 46 U.S.C. 8104. However, the OCMI has the authority to determine the specific manning levels for vessels required to have certificates of inspection by Part B of Subtitle II of Title 46 U.S.C., including the assignment of additional mates if determined necessary for the safe operation of the vessel.

46 U.S.C. 8301 and 46 CFR 15.810 apply in full to seagoing motor vessels, as defined in 46 U.S.C. 2101(33), regardless of whether they engage in towing. (2017)

See paragraph B2.G for Seagoing Motor Towing Vessels (> 300 GRT) and paragraph B2.D for Passenger-Carrying Barges Under Tow.

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1. Sample Scales. (2017)

Route			Watch System	Master	Mate	Able Seamen	Ordinary Seamen	Radio Officers	Deckhands	Certificated Lifeboatmen	Chief Engineer	Assistant Engineer	QMED (Fireman/Water tender)	QMED (Oilers)	Tankermen
Rivers	General Operations		2-Watch ≥12-Hour	1 ^[2]	1 ^[1,2]	-	-	*[5]	2 ^[12]	-	-	-	-	-	-
Rivers	12-Hour Operation		-	1 ^[2]	-	-	-	*[5]	1 ^[12]	-	-	-	-	-	-
Lakes, Bays & Sounds ^[9]	General Operations		2-Watch ≥12-Hour	1 ^[2]	1 ^[1,2]	-	-	*[5]	2 ^[12]	*[8]	-	-	-	-	-
Lakes, Bays & Sounds ^[9]	12-Hour Operation		-	1 ^[2]	-	-	-	*[5]	1 ^[12]	*[8]	-	-	-	-	-
Domestic Coastwise, Oceans, Great Lakes ^[2]	General Operations	Voyage of any length	2-Watch ≥12-Hour	1 ^[2,4]	1 ^[1,2,4]	-	-	*[5]	2 ^[12]	*[8]	-	-	-	-	-
Domestic Coastwise, Oceans, Great Lakes ^[10]	12-Hour Operations	Voyage of any length	-	1 ^[2,4]	-	-	-	*[5]	1 ^[12]	*[8]	-	-	-	-	-
Domestic Coastwise, Oceans, Great Lakes ^[10]	General Operations	<600 Miles	2-Watch	1 ^[2,4]	1 ^[1,2,4]	1 ^[6]	1 ^[6]	*[5]	-	*[8]	-	-	-	-	-
Domestic Coastwise, Oceans, Great Lakes ^[10]	12-Hour Operations	<600 Miles	-	1 ^[2,4]	-	1 ^[6]	-	*[5]	-	*[8]	-	-	-	-	-
Domestic Coastwise, Oceans, Great Lakes ^[10]	General Operations	≥600 Miles	2-Watch Master/Mates 3-Watch Other Crew	1 ^[2,4]	1 ^[1,2,4]	2 ^[6]	1 ^[6]	*[5]	-	*[8]	-	-	-	-	-

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Domestic Coastwise, Oceans, Great Lakes ^[10]	12-Hour Operations <200 ≥100 GRT	≥600 Miles	-	1 ^[2,4]	-	2 ^[6]	-	* ^[5]	-	* ^[8]	-	-	-	-	-
Domestic Coastwise, Oceans, Great Lakes ^[10]	General Operations <300 ≥200 GRT	<600 Miles	2-Watch	1 ^[2,4]	1 ^[1,2,4]	1 ^[6]	1 ^[6]	* ^[5]	-	* ^[8]	1	*1 ^[3]	-	-	-
Domestic Coastwise, Oceans, Great Lakes ^[10]	General Operations <300 ≥200 GRT	≥600 Miles	3-Watch	1 ^[2,4]	2 ^[1,2,4]	2 ^[6]	1 ^[6]	* ^[5]	-	* ^[8]	1	*2 ^[3]	-	-	-
International Voyage	General Operations <100 GRT	Voyage of any length	2-Watch ≥12-Hour	1 ^[2]	1 ^[1,2]	-	-	* ^[5]	2 ^[11,12]	* ^[8]	-	-	-	-	-
International Voyage	General Operations <200 ≥100 GRT	<600 Miles	2-Watch	1 ^[2]	1 ^[1,2]	1 ^[6]	1 ^[6]	* ^[5]	-	* ^[8]	-	-	-	-	-
International Voyage	General Operations <200 ≥100 GRT	≥600 Miles	2-Watch Master/ Mates 3-Watch Other Crew	1 ^[2]	1 ^[1,2]	2 ^[6]	1 ^[6]	* ^[5]	-	* ^[8]	-	-	-	-	-
International Voyage	General Operations <300 ≥200 GRT	<600 Miles	2-Watch	1 ^[2]	1 ^[1,2]	1 ^[6]	1 ^[6]	* ^[5]	-	* ^[8]	1	*1 ^[3]	-	-	-
International Voyage	General Operations <300 ≥200 GRT	≥600 Miles	3-Watch	1 ^[2]	2 ^[1,2]	2 ^[6]	1 ^[6]	* ^[5]	-	* ^[8]	1	*2 ^[3]	-	-	-
Exclusive Great Lakes	General Operations ≥300 GRT	<600 Miles	2-Watch	1 ^[2,4]	1 ^[1,2,4]	1 ^[6]	1 ^[6]	* ^[5]	-	* ^[8]	1	*1 ^[3]	-	-	-
Exclusive Great Lakes	General Operations ≥300 GRT	≥600 Miles	2-Watch Master/ Mates 3-Watch Other Crew	1 ^[2,4]	1 ^[1,2,4]	2 ^[6]	1 ^[6]	* ^[5]	-	* ^[8]	1	*2 ^[3]	-	-	-

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- [1] See B3.D for Mate computations and COI formatting
 - [2] See B3.G for Towing Endorsements
 - [3] See B3.F for Engineer computations and COI formatting
 - [4] See B3.I for Federal Pilotage
 - [5] See B3.L for Radio Officers and GMDSS
 - [6] See B4.D for Deck Department Ratings
 - [7] See B4.E for Engine Department Ratings
 - [8] See 46 CFR 15.404(e) and (g) for Lifeboatmen. See also B2.B.2.f for general discussion.
 - [9] Except Great Lakes
 - [10] Not on an International Voyage
 - [11] See B4.B.1. for additional discussion on the impact of international conventions on certain vessels employing deckhands.
 - [12] Not credentialed
- * Denotes variable

2. Common Variables. (2017)

a. Western Rivers Endorsement. (2017)

46 CFR 11.464(e) provides that in order to serve as master of towing vessels on the Western Rivers, a person must possess 90 days of observation and training and have an endorsement on his or her merchant mariner credential for Western Rivers.

b. Merchant Mariner Credential (MMC). (2017)

46 USC 8701 requires a merchant mariner credential for persons serving on vessels of 100 GRT and over. Per 46 USC 8701(a)(1), a MMC is **not** required of ratings serving on vessels operating only on rivers and lakes (except the Great Lakes).

c. Work Hour Limits. (2017)

(1) 46 USC 8104(h) provides that a person licensed to operate a towing vessel, to which 46 USC 8904 applies, may not work more than 12 hours in a consecutive 24-hour period, except in an emergency.

(2) In general, 46 U.S.C. 8104(c) stipulates that, on a towing vessel operating on the Great Lakes, a licensed or unlicensed seamen in the deck or engine department may not be required to work more than 8 hours in one day or permitted to work more than 15 hours in any 24-hour period, or more than 36 hours in any 72-hour period, except in an emergency when life or property are endangered. See Figure B7-1 NOTE 10 for additional discussion on the effects of a two or three watch system.

d. First-Class Pilotage. (2017)

(1) 46 CFR 15.535(c)(1) provides that a towing vessel moving a tank barge on the pilotage waters of the Lower Mississippi River must be under the control of an individual with a first-class pilot's license or endorsement, or an individual licensed to operate a towing vessel who has completed 12 round trips of the route

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as an observer, with at least 3 of those trips during hours of darkness, and at least one round trip of the 12 within the last 5 years.

- (2) 46 CFR 15.535(c)(2) provides that a towing vessel operating light boat, or moving uninspected barges, on the pilotage waters of the Lower Mississippi River must be under the control of an individual with a first-class pilot's license or endorsement, or an individual licensed to operate a towing vessel who has completed at least 4 round trips over the route as an observer, with at least one of those trips during hours of darkness, and at least one round trip within the last 5 years.

e. Engineers. (2017)

- (1) A chief engineer is not required on a towing vessel inspected under 46 CFR Subchapter M operating exclusively on inland service (other than Great Lakes). However, 46 CFR 15.820(a)(3) requires inland (other than Great Lakes) vessels of 300 GRT and over to have an individual holding an MMC endorsed as chief engineer or other credential authorizing service as chief engineer, if the OCMI determines that an individual with such a license or endorsement responsible for the vessel's mechanical propulsion is necessary.

NOTE: For purposes of towing vessels, the applicable subchapter B definition of "inland waters" excludes the Western Rivers. See 46 CFR 10.107. Therefore, 46 CFR 15.820(a)(3) does not apply to a towing vessel when it is operating on Western Rivers, a term also defined in 46 CFR 10.107. Those towing vessels operating on inland waters beyond the Western Rivers may be required to have a credentialed individual responsible for the vessel's mechanical propulsion based on a vessel-specific assessment conducted by the cognizant OCMI. 81 FR 40008. (2017)

- (2) 46 CFR 15.820(a)(1) requires inspected seagoing or Great Lakes vessels of 200 GRT and over to have an individual holding an MMC or license endorsed as chief engineer or other credential authorizing service as chief engineer.
- (3) A chief engineer is not required on a towing vessel less than 200 GRT inspected under 46 CFR Subchapter M.
- (4) 46 CFR 15.915(a)(1) and (2) establish that on vessels of 500 GRT or less, a designated duty engineer (DDE) license or endorsement authorizes service as a chief or assistant engineer in the following manner:

A DDE limited to vessels of not more than 1,000 HP (750 kW) or 4,000 HP (3,000 kW) may serve only on near coastal, Great Lakes, or inland waters.

A DDE with no horsepower limitations may serve on any waters.

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- (5) Number of assistant engineers dependent on level of automation. See variable 3.b.
- f. Able Seamen. (2017)
- (1) 46 CFR 15.840(a) requires that on vessels of 100 GRT and over, except those operating only on rivers and lakes (except the Great Lakes), able seamen must comprise at least 65 percent of the deck crew. For vessels permitted to maintain a two-watch system, the percentage of able seamen may be reduced to 50 percent.
- (2) Vessels less than 100 GRT are not required to carry able seamen. See NVIC 1-95 for Voluntary Training Standards for Entry-Level Personnel on Towing Industry Vessels.
3. General Variables. (2017)
Other variables that may be applied to all vessels regardless of route and service. Variable 3.g. has been specifically included in the manning scales as a reference.
- a. Additional Manning. (2017)
Additional manning may be provided as specified in the Towing Safety Management System applicable to the vessel, taking into account the following factors:
- (1) Safety of personnel, equipment, and environment
 - (2) Service in which the towing vessel and tow are engaged
 - (3) Number, size, and type of barges to be towed
 - (4) Route/geographic area of operation
 - (5) Functional duties required of crew in addition to standard navigation
 - (6) Configuration of vessel superstructure, deck, and engine room
 - (7) Extent of automation
 - (8) Size and power of equipment used
 - (9) Prevailing environmental and climatic conditions
 - (10) Experience of crew
 - (11) Availability of assistance
- These additional crewmembers should be annotated on the COI as “Additional Persons in Crew” and be accounted for in the total allowed on board for the correct amount of lifesaving equipment to be carried.
- b. Machinery Space Attendance And Reduced Manning. (2017)
Where there is a requirement for engine room manning, 46 CFR 15.715(a) allows the Coast Guard to accept automated systems to replace specific personnel or reduce overall crew requirements as appropriate given the capabilities of the automated system, the system’s demonstrated and continuing reliability, and a planned maintenance program that ensures the continued safe operation of the vessel. There is no requirement for engine room manning for vessels of less than 100 GRT as well as for those that only operate on Rivers, and Lakes (except the Great Lakes) Bays and Sounds.

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As specified in the table below, 46 CFR Part 130 Subpart D or an acceptable equivalent will be favorably considered by the Coast Guard as meeting the criteria for the elimination of continuous watchstanding in the engine-room. The table provides the applicability and references related to machinery space attendance and reduced manning for towing vessels inspected under Subchapter M. Acceptable equivalents include 46 CFR Part 62 or NVIC 1-78 (series) as well as an appropriate, valid, notation for unattended machinery space from a Recognized Classification Society for classed vessels.

The minimum required engine department manning level necessary to provide for the safe operation of the propulsion machinery in the unattended mode is the responsibility of the cognizant OCMI, taking into consideration the various other concerns that bear on manning level determinations. Prior to any reductions in engineering personnel, the OCMI must be satisfied with the arrangements to ensure adequate watchkeeping, hours of rest, and provisions for onboard maintenance. All provisions for reductions in the engineering complement based on automation should be adequately specified in the manning proposal (see Chapter B1). The established manning level must not be less than the minimums stipulated by law or regulation. See Chapter B6.A.3.b.(4)(d) & (e) for guidance on the issuance of the COI and B6.A.4. for annual inspections.

Particulars	Unattended Machinery Space (PUMS)	Reduced Manning (w/PUMS)	a) Plan Review & Procedure approval b) Trial Period
Seagoing 100 GRT to 299 GRT ^[1,2,4]	46 CFR Part 130 Subpart D	46 CFR 62.50-20(h) & 62.50-30(j)	a) 46 CFR 130.480 submitted to comply with 46 CFR 144.135 & 144.145 b) No
Seagoing 300 GRT to 499 GRT ^[1,2]	46 CFR Part 130 Subpart D & 46 CFR Part 61	46 CFR 62.50-20(h) & 62.50-30(j)	See B6.A.3 ^[3]
Exclusive Great Lakes >100 GRT ^[1,4]	46 CFR Part 130 Subpart D	46 CFR 62.50-20(h) & 62.50-30(j)	a) 46 CFR 130.480 submitted to comply with 46 CFR 144.135 & 144.145 b) No

¹GT ITC is used for vessels measured solely under the Convention Measurement System.

²SOLAS Chapter II-1, including Part E, may apply for vessels of 500 GT ITC or more on an international voyage depending on keel laying date.

³Vessels certificated in accordance with 46 CFR Subchapter I should follow Chapter B6.A.3., with the exception that 46 CFR Part 130 Subpart D may be accepted in lieu of 46 CFR Part 62 as specified in this section.

⁴Chief Engineer is required for vessels of 200 GRT and over (46 CFR 15.820(a)(1)).

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33 CFR 155.710(e)(1) prescribes requirements for persons in charge (PIC) of fuel transfers requiring a Declaration of Inspection. A PIC of a fuel transfer on a towing vessel inspected under 46 CFR Subchapter M must either: 1) hold a valid merchant mariner credential authorizing service as a master, mate, pilot, engineer, or operator aboard that vessel; or 2) hold a valid merchant mariner credential with the appropriate endorsement, such as Tankerman-PIC. Per 33 CFR 156.100, this applies to the transfer of oil or hazardous material on the navigable waters or contiguous zone of the United States to, from, or within each vessel with a capacity of 250 barrels or more (10,500 gallons). Specifically, 33 CFR 156.120(s) includes a transfer between two vessels, when at least one of the vessels has a capacity of 250 barrels or more (62 FR 25116). See 81 FR 40083 for implementation. Mariners on U. S. vessels involved with the bunkering operation should be trained in accordance with 46 CFR 15.405 (Familiarity with vessel characteristics) before assuming their duties and responsibilities.

NOTE: See CG-MMC Policy Letter 01-17 for Guidelines for Issuing Endorsements for Tankerman-PIC Restricted to Fuel Transfers on Towing Vessels. Endorsements issued under this policy are only valid for towing vessels certificated under 46 CFR Subchapter M engaged in domestic service and does not include any transfer of liquid/gas cargo in bulk or cargo-tank cleaning. A medical certificate is not required for service under this endorsement. The requirements of 46 CFR Part 10 must be met prior to serving in any other capacity requiring a MMC, including; Wiper, OS, or SD(FH). (2017)

d. Master or Mate (Pilot) with Appropriate Geographic Endorsement. (2017)

46 CFR 15.535(b) provides that a towing vessel over 26 feet in length must be under the direction and control of a person licensed as master or mate (pilot) of towing vessels or as master or mate of steam or motor vessels greater than 200 GRT holding either an endorsement on his or her license for towing vessels or a completed Towing Officer's Assessment Record (TOAR) signed by a designated examiner indicating that the officer is proficient in the operation of towing vessels. See also Figure B3-2: Towing Endorsement Table. For routes other than the Western Rivers, 46 CFR 11.464(f) & (g) provide a 30 day observation and training requirement for mariners in control of towing vessels.

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In general, 46 USC 8104(h) provides that a person licensed to operate a towing vessel may work no more than 12 hours in a consecutive 24-hour period, except in an emergency. 46 USC 8104 (c) states that on a towing vessel (except a towing vessel operated only for fishing, fish processing, fish tender, or engaged in salvage operations) operating on the Great Lakes, harbors of the Great Lakes, and connecting or tributary waters between Gary, Indiana, Duluth, Minnesota, Niagara Falls, New York, and Ogdensburg, New York, a licensed individual or seaman in the deck or engine department may not be required to work more than 8 hours in one day or permitted to work more than 15 hours in any 24-hour period, or more than 36 hours in any 72-hour period, except in an emergency when life or property are endangered.

f. First-Class Pilotage and “Acting As” Pilots. (2017)

See 46 CFR 15.610 & 15.812 as well as 46 USC 8502 for pilotage regulations. For "acting as" pilots specifically 46 CFR 15.812(b)(2), which applies to coastwise seagoing and Great Lakes towing vessels of not more than 1,600 GRT. See Part A, Chapter 11 and Part B, Chapter 3 for detailed discussion of pilotage requirements.

g. International Convention on Standards of Training, Certification, and Watchkeeping (STCW). (2017)

STCW is applicable to towing vessels operating beyond the boundary line specified in 46 CFR Part 7, except as noted in 46 CFR 15.1101(a)(1) and (2). Specifically, vessels operating exclusively on the Great Lakes or on the inland waters of the U.S., in the Straits of Juan de Fuca, or on the Inside Passage between Puget Sound and Cape Spencer are exempt from application of STCW. Additionally, vessels of less than 200 GRT (other than passenger vessels subject to subchapter H of 46 CFR chapter I) engaged exclusively on domestic voyages are not subject to any obligation for the purposes of STCW. See Chapters B3, B4, and B5. See also Figures B2-3 and B2-4.

PART B: VESSEL MANNING**CHAPTER 2: SAMPLE VESSEL MANNING SCALES****X. Manning And STCW Certification Reference Tables (Seagoing Vessels). (2014, 2017)**

The tables found in this Section provide guidance on the numbers of credentialed deck and engineer officers appropriate to different sizes of vessels (tonnage), trading areas, and aggregate propulsion power as well as STCW certification references. The STCW references indicate the endorsements required, not the minimum manning level. Additional tables are provided, pertaining to towing vessels (uninspected (UTVs) or Subchapter M) and offshore supply vessels (OSVs). These tables do not address or provide guidance applicable to Mobile Offshore Drilling Units (MODUs). The number of ratings required should be determined by the factors summarized elsewhere in this Chapter. As the watchkeeping arrangements for the engineering department and the demands placed on personnel vary significantly according to the level of automation, these tables only provide guidance and are not all-inclusive. It must be clearly understood that these tables are stated for conventional (NON-AUTOMATED) vessels, and do not invalidate the basic legal requirements outlined in Chapter B1 of this Volume. OCMI's as well as owners/operators must take all relevant factors into account during the manning determination process. In consideration of the manning scale variables, the OCMI should give due regard to the company's manning proposal as discussed in Chapter B1. See Chapter B3, paragraph B.2 for discussion on STCW applicability.

The Manning and STCW Certification Reference Tables provide the format necessary to present the comprehensive relationship between U.S. manning regulations (GRT) and STCW Certification requirements (GT ITC). With limited exceptions, the Size of Vessel column, for determining the number of credentialed officers in the required complement, is based on GRT, including for dual-tonnage vessels, (See Chapter B3, paragraph B.1). For vessels measured solely under the Convention Measurement System, the GT ITC is used to apply manning requirements. For U.S. vessels of less than 1600 GRT operating exclusively to and from U.S. ports, the STCW Grade of Officer columns are based on GRT (See Chapter B3, paragraph B.3), otherwise the GT ITC is used if assigned.

NOTE: In addition to meeting the required provisions of STCW, mariners must also hold the corresponding domestic endorsement appropriate for the vessel and trading area (46 CFR 15.401). Reference 46 CFR 15.105(g) for certain vessels engaged on domestic, near-coastal voyages (See Chapter B3, paragraph B.2.d.). (2014)

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Figure B2-1: Deck Officer Table (2014, 2017)

Trading Area	Inspection Status	Size of Vessel (GRT)	Number; Grade of Officers to be carried – STCW			
			Reg II/2 Master	Reg II/2 Ch.Mate	Reg II/1 OICNW	Reg II/3 OICNW
Unlimited	Inspected	≥1,000	1	1(e)(f)	2(a)(f)	-
Unlimited	Inspected	<1,000 ≥500	1	-	2(f)	-
Unlimited	Inspected	<500 ≥100	1	-	2(f)	-
Unlimited	Inspected	<100	1	-	1(c)	-
Unlimited	Uninspected	<300 ≥200	1	-	2(d)	-
Unlimited	Uninspected	<200	1	-	1(c)	-
Near-Coastal	Inspected	≥1,000	1	1(e),(f)	2(a),(f)	-
Near-Coastal	Inspected	<1,000 ≥500	1	-	2(f)	-
Near-Coastal	Inspected	<500 ≥100	-	-	-	3(b),(f)(g)
Near-Coastal	Inspected	<100	-	-	-	2(b)(c)
Near-Coastal	Uninspected	<300 ≥200	-	-	-	3(b)(d)(g)
Near-Coastal	Uninspected	<200	-	-	-	-(c)

Variables

- a. When on a voyage of less than 400 miles from port of departure to port of final destination, OICNW (mate) may be reduced to one.
- b. One must have an endorsement for the capacity of master.
- c. Vessels on voyages not exceeding 12 hours in duration may, if the OCMI determines it to be safe, be operated without mates. For uninspected vessels, see Chapter B7.
- d. An individual in charge of the navigation or maneuvering of a self-propelled, uninspected, documented, seagoing vessel of 200 GRT or over must hold an appropriate license or MMC authorizing service as mate.
- e. On vessels of less than 1600 GRT an OICNW (Reg II/1) may be substituted for the Chief Mate (Reg II/2).
- f. Inspected seagoing motor towing vessels (> 300 GRT) may utilize a two-watch system on voyages of less than 600 miles. However, the minimum number of mates required by 46 U.S.C. 8301 and 46 CFR 15.810 applies regardless. See Section B2.G.
- g. Depending on voyage/vessel particulars, vessels of 500 GT ITC or more may require a Master (Reg II/2) and Mates (Reg II/1). See Figure B3-1 for tonnage applicability.

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Figure B2-2: Engineer Officer Table (2014, 2017)

Trading Area	Inspection Status Size of Vessel (GRT)	Registered Propulsion Power kW (hp)	Number; Grade of Officers to be carried – STCW			Total
			Chief Engineer	Second Engineer (U.S. 1 st A/E)	OICEW (j)	
Unlimited	Inspected ≥1000	≥3,000kW (4,000hp)	1; III/2	1(i); III/2	2; III/1	4
Unlimited	Inspected <1000 ≥500	≥3,000kW (4,000hp)	1; III/2	1(i); III/2	2(a); III/1	4
Unlimited	Inspected <500 ≥100	≥3,000kW (4,000hp)	1; III/2(b)	1; III/2(b)	2(a); III/1(c)	4
Unlimited	Inspected <100	≥3,000kW (4,000hp)	(h)	-	(h)	
Unlimited	Inspected ≥1000	<3,000kW (4,000hp) ≥750kW (1,000hp)	1; III/3	1(i); III/3	2; III/1	4
Unlimited	Inspected <1000 ≥500	<3,000kW (4,000hp) ≥750kW (1,000hp)	1; III/3	1(i); III/3	2(a); III/1	4
Unlimited	Inspected <500 ≥100	<3,000kW (4,000hp) ≥750kW (1,000hp)	1; III/3(b)	1; III/3(b)	2(a); III/1(c)	4
Unlimited	Inspected <100	<3,000kW (4,000hp) ≥750kW (1000hp)	(h)	-	(h)	-
Unlimited	Uninspected <300 ≥200	≥3,000kW (4,000hp)	1; III/2(b)(d)	-	2; III/1(c)(e)	3

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Figure B2-2: Engineer Officer Table (Con't)

Trading Area	Inspection Status Size of Vessel (GRT)	Registered Propulsion Power kW (hp)	Number; Grade of Officers to be carried – STCW			Total
			Chief Engineer	Second Engineer (U.S. 1 st A/E)	OICEW (j)	
Unlimited	Uninspected <300 ≥200	<3,000kW (4,000hp) ≥750kW (1,000hp)	1; III/3(b)(d)	-	2; III/1(c)(e)	3
Unlimited	Uninspected <200	≥3,000kW (4,000hp)	(h); III/2(b)	-	(h); III/1(c)	See CH. B3 Para. E
Unlimited	Uninspected <200	<3,000kW (4,000hp) ≥750kW (1,000hp)	(h); III/3(b)	-	(h); III/1(c)	See CH. B3 Para. E
Near-Coastal	Inspected ≥1000	≥3,000kW (4,000hp)	1; III/2	1(i); III/2	2; III/1	4
Near-Coastal	Inspected <1000 ≥500	≥3,000kW (4,000hp)	1; III/2	1(i); III/2	2(a); III/1	4
Near-Coastal	Inspected <500 ≥100	≥3,000kW (4,000hp)	1; III/2(b)	1; III/2(b)	2(a); III/1(c)	4
Near-Coastal	Inspected <100	≥3,000kW (4,000hp)	(h)	-	(h)	-
Near-Coastal	Inspected ≥1000	<3,000kW (4,000hp) ≥750kW (1,000hp)	1; III/3	1(i); III/3	2; III/1	4
Near-Coastal	Inspected <1000 ≥500	<3,000kW (4,000hp) ≥750kW (1,000hp)	1; III/3	1(i); III/3	2(a); III/1	4
Near-Coastal	Inspected <500 ≥100	<3,000kW (4,000hp) ≥750kW (1,000hp)	1; III/3(f)	1; III/3(f)	2(a); III/1(g)	4

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Figure B2-2: Engineer Officer Table (Con't)

Trading Area	Inspection Status Size of Vessel (GRT)	Registered Propulsion Power kW (hp)	Number; Grade of Officers to be carried – STCW			Total
			Chief Engineer	Second Engineer (U.S. 1 st A/E)	OICEW (j)	
Near-Coastal	Inspected <100	<3,000kW (4,000hp) ≥750kW (1,000hp)	(h)	-	(h)	-
Near-Coastal	Uninspected <300 ≥200	≥3,000kW (4,000hp)	1; III/2(b)(d)	-	2; III/1(e)(g)	3
Near-Coastal	Uninspected <300 ≥200	<3,000kW (4,000hp) ≥750kW (1,000hp)	1; III/3(b)(f)	-	2; III/1(e)	3
Near-Coastal	Uninspected <200	≥3,000kW (4,000hp)	(h); III/2(b)	-	(h); III/1(c)	See CH. B3 Para. E
Near-Coastal	Uninspected <200	<3,000kW (4,000hp) ≥750kW (1,000hp)	(h); III/3(f)	-	(h); III/1(g)	See CH. B3 Para. E

Variables

- a. If the OCMI determines it to be safe and a three watch system can effectively be maintained, OICEW may be reduced to one.
- b. A designated duty engineer with no horse power limitation, endorsed in accordance with STCW III/2 or III/3 (propulsion power dependant), is authorized for service as chief engineer or second engineer (U.S. 1st A/E) on vessels of not more than 500 GRT on any waters.
- c. A designated duty engineer with no horse power limitation, endorsed in accordance with STCW III/1, is authorized for service as OICEW on vessels of not more than 500 GRT on any waters.
- d. An individual engaged or employed to perform the duties of chief engineer on a mechanically propelled, uninspected, seagoing, documented vessel of 200 GRT or over must hold an appropriately endorsed license or MMC authorizing service as a chief engineer.
- e. An individual in charge of an engineering watch on a mechanically propelled seagoing, documented vessel of 200 GRT or over must hold an appropriately endorsed license of MMC authorizing service as an assistant engineer.

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- f. A designated duty engineer limited to vessels of not more than 3000kW (4,000hp), endorsed in accordance with STCW III/3, is authorized for service as chief engineer or second engineer (U.S. 1st A/E) on vessels of not more than 500 GRT on near-coastal waters.
- g. A designated duty engineer limited to vessels of not more than 3000kW (4,000hp), endorsed in accordance with STCW III/1, is authorized for service as OICEW on vessels of not more than 500 GRT on near-coastal waters.
- h. 46 CFR 15.1103(a) may apply.
- i. On vessels of less than 1600 GRT an OICEW (Reg III/1) may be substituted for the Second Engineer (U.S. 1st A/E) (Reg III/2).
- j. See B6.A.3.b(4)(d)&(e) for Issuance of COI with reduced manning based on automated engineering systems.

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Figure B2-3: Towing Vessels (UTV or Subchapter M) – Deck Officers (2014, 2017)

Trading Area	Watch System	Size of Vessel (GRT)	Number; Grade of Officers to be carried – STCW			
			Reg II/2 Master	Reg II/2 Ch.Mate	Reg II/1 OICNW	Reg II/3 OICNW
Unlimited	3 (≥600 miles)	<300 ≥200	1(a)(d)	-	2(a)(b)(d)	-
Unlimited	2 (≥600 miles)	<200	1(a)(d)	-	1(a)(d)(e)	-
Unlimited	2 (<600)	<300 ≥200	1(a)(d)	-	1(a)(b)(d)	-
Unlimited	2 (<600)	<200	1(a)(d)	-	1(a)(d)	-
Near-Coastal	3 (≥600 miles)	<300 ≥200	-	-	-	3(a)(b)(c)(d)(f)
Near-Coastal	2 (≥600 miles)	<200	-	-	-	2(a)(c)(d)(e)
Near-Coastal	2 (<600)	<300 ≥200	-	-	-	2(a)(b)(c)(d)(f)
Near-Coastal	2 (<600)	<200	-	-	-	2(a)(c)(d)

Variables

- a. 46 CFR 15.535(b) or 15.610(a) apply.
- b. An individual in charge of the navigation or maneuvering of a self-propelled, uninspected, documented, seagoing vessel of 200 GRT or over must hold an appropriate license or MMC authorizing service as mate.
- c. One must have an endorsement for the capacity of master.
- d. 46 CFR 15.1103(a) applies.
- e. 46 CFR 15.705(d) applies. An additional Mate (Reg II/1 OICNW) should be considered to avoid potential conflicts with STCW hours of rest provisions. See Chapter B5, Section A.5.b. for additional information.
- f. Depending on voyage/vessel particulars, vessels of 500 GT ITC or more may require a Master (Reg II/2) and Mates (Reg II/1). See Figure B3-1 for tonnage applicability.

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Figure B2-4: Towing Vessels (UTV or Subchapter M) – Engineer Officers (2014, 2017)

Trading Area	Watch System	Size of Vessel (GRT)	Registered Propulsion Power kW (hp)	Number; Grade of Officers to be carried – STCW			Total
				Chief Engineer	Second Engineer (U.S. 1 st A/E)	OICEW (h)	
Unlimited	3 (≥600 miles)	<300 ≥200	≥3000kW (4000hp)	1; III/2(a)(c)	-	2; III/1(b)(d)	3
Unlimited	- (≥600 miles)	<200	≥3000kW (4000hp)	(g); III/2(a)	-	(g); III/1(b)	See CH. B3 Para. E
Unlimited	2 (<600)	<300 ≥200	≥3000kW (4000hp)	1; III/2(a)(c)	-	1; III/1(b)(d)	2
Unlimited	- (<600)	<200	≥3000kW (4000hp)	(g); III/2(a)	-	(g); III/1(b)	See CH. B3 Para. E
Unlimited	3 (≥600 miles)	<300 ≥200	<3000kW (4000hp) ≥750kW (1000hp)	1; III/3(a)(c)	-	2; III/1(b)(d)	3
Unlimited	- (≥600 miles)	<200	<3000kW (4000hp) ≥750kW (1000hp)	(g); III/3(a)	-	(g); III/1(b)	See CH. B3 Para. E
Unlimited	2 (<600)	<300 ≥200	<3000kW (4000hp) ≥750kW (1000hp)	1; III/3(a)(c)	-	1; III/1(b)(d)	2
Unlimited	- (<600)	<200	<3000kW (4000hp) ≥750kW (1000hp)	(g); III/3(a)	-	(g); III/1(b)	See CH. B3 Para. E
Near-Coastal	3 (≥600 miles)	<300 ≥200	≥3000kW (4000hp)	1; III/2(a)(c)		2; III/1(b)(d)	3
Near-Coastal	- (≥600 miles)	<200	≥3000kW (4000hp)	(g); III/2(e)	-	(g); III/1(f)	See CH. B3 Para. E

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Figure B2-4: Towing Vessels (UTV or Subchapter M) – Engineer Officers (Con't)

Trading Area	Watch System	Size of Vessel (GRT)	Registered Propulsion Power kW (hp)	Number; Grade of Officers to be carried – STCW			Total
				Chief Engineer	Second Engineer (U.S. 1 st A/E)	OICEW (h)	
Near-Coastal	2 (<600)	<300 ≥200	≥3000kW (4000hp)	1; III/2(a)(c)	-	1; III/1(b)(d)	2
Near-Coastal	- (<600)	<200	≥3000kW (4000hp)	(g); III/2(a)	-	(g); III/1(b)	See CH. B3 Para. E
Near-Coastal	3 (≥600 miles)	<300 ≥200	<3000kW (4000hp) ≥750kW (1000hp)	1; III/3(c)(e)	-	2; III/1(d)(f)	3
Near-Coastal	- (≥600 miles)	<200	<3000kW (4000hp) ≥750kW (1000hp)	(g); III/3(e)	-	(g); III/1(f)	See CH. B3 Para. E
Near-Coastal	2 (<600)	<300 ≥200	<3000kW (4000hp) ≥750kW (1000hp)	1; III/3(c)(e)	-	1; III/1(d)(f)	2
Near-Coastal	- (<600)	<200	<3000kW (4000hp) ≥750kW (1000hp)	(g); III/3(e)	-	(g); III/1(f)	See CH. B3 Para. E

Variables

- a. A designated duty engineer with no horse power limitation, endorsed in accordance with STCW III/2 or III/3 (propulsion power dependant), is authorized for service as chief engineer or second engineer (U.S. 1st A/E) on vessels of not more than 500 GRT on any waters.
- b. A designated duty engineer with no horse power limitation, endorsed in accordance with STCW III/1, is authorized for service as OICEW on vessels of not more than 500 GRT on any waters.
- c. An individual engaged or employed to perform the duties of chief engineer on a mechanically propelled, uninspected, seagoing, documented vessel of 200 GRT or over must hold an appropriately endorsed license or MMC authorizing service as a chief engineer (see 46 CFR 15.820(b)).

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- d. An individual in charge of an engineering watch on a mechanically propelled seagoing, documented vessel of 200 GRT or over must hold an appropriately endorsed license or MMC authorizing service as an assistant engineer (see 46 CFR 15.825(a)).
- e. A designated duty engineer limited to vessels of not more than 3,000kW (4,000hp), endorsed in accordance with STCW III/3, is authorized for service as chief engineer or second engineer (U.S. 1st A/E) on vessels of not more than 500 GRT on near-coastal waters.
- f. A designated duty engineer limited to vessels of not more than 3,000kW (4,000hp), endorsed in accordance with STCW III/1, is authorized for service as OICEW on vessels of not more than 500 GRT on near-coastal waters.
- g. 46 CFR 15.1103(a) may apply.
- h. See B6.A.3.b(4)(d)&(e) for Issuance of COI with reduced manning based on automated engineering systems.

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Figure B2-5: Offshore Supply Vessels (OSV) – Deck Officers (2014)

Trading Area	Watch System	Size of Vessel (GRT/ GT ITC)	Number; Grade of Officers to be carried – STCW			
			Reg II/2 Master	Reg II/2 Ch.Mate	Reg II/1 OICNW	Reg II/3 OICNW
Unlimited	3 (≥600 miles)	≥6,000 GT ITC	1; II/2	1; II/2	2; II/1	-
Unlimited	3 (≥600 miles)	<500 GRT or 6,000 GT ITC	1; II/2	-	2(c); II/1	-
Unlimited	2 (≤600 miles)	≥6,000 GT ITC	1; II/2	1; II/2	1; II/1	-
Unlimited	2 (≤600 miles)	<500 GRT or 6,000 GT ITC	1; II/2	-	1(c); II/1	-
Near-Coastal	3 (≥600 miles)	≥6,000 GT ITC	1; II/2	1; II/2	2; II/1	-
Near-Coastal	3 (≥600 miles)	<500 GRT(a) or 6,000 GT ITC ≥500 GT ITC	1; II/2	-	2(c); II/1	-
Near-Coastal	2 (≤600 miles)	≥6,000 GT ITC	1; II/2	1; II/2	1; II/1	-
Near-Coastal	2 (≤600 miles)	<500 GRT(a) or 6,000 GT ITC ≥500 GT ITC	1; II/2	-	1(c); II/1	-
Near-Coastal	3 (≥600 miles)	<500 GT ITC	-	-	-	3(c); II/3(b)
Near-Coastal	2 (≤600 miles)	<500 GT ITC	-	-	-	2(c); II/3(b)

Variables

- a. If a vessel is only assigned a GRT and no GT ITC, then the master and mate may be certificated in accordance with STCW II/3 for a vessel of less than 500 GRT on a near coastal voyage.
- b. One must have an endorsement as master.
- c. For OSVs less than 100 GRT, see 46 CFR 15.810 (b)(5).

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Figure B2-6: Offshore Supply Vessels (OSV) – Engineer Officers (2014, 2017)

Trading Area	Watch System	Size of Vessel (GRT/ GT ITC)	Registered Propulsion Power kW (hp)	Number; Grade of Officers to be carried – STCW			Total
				Chief Engineer	Second Engineer (U.S. 1 st A/E)	OICEW (g.)	
Unlimited	3 (≥600 miles)	≥6,000 GT ITC	≥3,000kW (4,000hp)	1; III/2	1; III/2	2; III/1	4
Unlimited	3 (≥600 miles)	<500 GRT or 6,000 GT ITC	≥3,000kW (4,000hp)	1; III/2(b)	1; III/2(b)	2(a); III/1(c)	4
Unlimited	2 (<600)	≥6,000 GT ITC	≥3,000kW (4,000hp)	1; III/2	1; III/2	1; III/1	3
Unlimited	2 (<600)	<500 GRT or 6,000 GT ITC ≥200	≥3,000kW (4,000hp)	1; III/2(b)	-	2(a); III/1(c)	3
Unlimited	3 (≥600 miles)	≥6,000 GT ITC	<3,000kW (4,000hp) ≥750kW (1,000hp)	1; III/3	1; III/3	2(a); III/1	4
Unlimited	3 (≥600 miles)	<500 GRT or 6,000 GT ITC ≥200	<3,000kW (4,000hp) ≥750kW (1,000hp)	1; III/3(b)	-	2; III/1(c)	3
Unlimited	2 (<600)	≥6,000 GT ITC	<3,000kW (4,000hp) ≥750kW (1,000hp)	1; III/3	1; III/3	1; III/1	3
Unlimited	2 (<600)	<500 GRT or 6,000 GT ITC ≥200	<3,000kW (4,000hp) ≥750kW (1,000hp)	1; III/3(b)	-	2(a); III/1(c)	3
Unlimited	Any	<200	<3,000kW (4,000hp) ≥750kW (1,000hp)	(f); III/3(b)	-	(f); III/1(c)	-

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Figure B2-6: Offshore Supply Vessels (OSV) – Engineer Officers (Con't)

Trading Area	Watch System	Size of Vessel (GRT/ GT ITC)	Registered Propulsion Power kW (hp)	Number; Grade of Officers to be carried – STCW			Total
				Chief Engineer	Second Engineer (U.S. 1 st A/E)	OICEW (g).	
Near-Coastal	3 (≥600 miles)	≥6,000 GT ITC	≥3,000kW (4,000hp)	1; III/2	1; III/2	2; III/1	4
Near-Coastal	3 (≥600 miles)	<500 GRT or 6,000 GT ITC	≥3,000kW (4,000hp)	1; III/2(b)	1; III/2(b)	2(a); III/1(c)	4
Near-Coastal	2 (<600)	≥6,000 GT ITC	≥3,000kW (4,000hp)	1; III/2	1; III/2	1; III/1	3
Near-Coastal	2 (<600)	<500 GRT or 6,000 GT ITC ≥200	≥3,000kW (4,000hp)	1; III/2(b)	-	2(a); III/1(c)	3
Near-Coastal	3 (≥600 miles)	≥6,000 GT ITC	<3,000kW (4,000hp) ≥750kW (1,000hp)	1; III/3	1; III/3	2(a); III/1	4
Near-Coastal	3 (≥600 miles)	<500 GRT or 6,000 GT ITC ≥200	<3,000kW (4,000hp) ≥750kW (1,000hp)	1; III/3(d)	-	2; III/1(e)	3
Near-Coastal	2 (<600)	≥6,000 GT ITC	<3,000kW (4,000hp) ≥750kW (1,000hp)	1; III/3	1; III/3	1; III/1	3
Near-Coastal	2 (<600)	<500 GRT or 6,000 GT ITC ≥200	<3,000kW (4,000hp) ≥750kW (1,000hp)	1; III/3(d)	-	2(a); III/1(e)	3
Near-Coastal	Any	<200	<3,000kW (4,000hp) ≥750kW (1,000hp)	(f); III/3(d)	-	(f); III/3(e)	-

PART B: VESSEL MANNING**CHAPTER 2: SAMPLE VESSEL MANNING SCALES**Variables

- a. If the OCMI determines it to be safe and the applicable watch system can be effectively maintained, OICEW may be reduced to one.
- b. A designated duty engineer with no horse power limitation, endorsed in accordance with STCW III/2 or III/3 (propulsion power dependant), is authorized for service as chief engineer or second engineer (U.S. 1st A/E) on vessels of not more than 500 GRT on any waters.
- c. A designated duty engineer with no horse power limitation, endorsed in accordance with STCW III/1, is authorized for service as OICEW on vessels of not more than 500 GRT on any waters.
- d. A designated duty engineer limited to vessels of not more than 3,000kW (4,000hp), endorsed in accordance with STCW III/3, is authorized for service as chief engineer or second engineer (U.S. 1st A/E) on vessels of not more than 500 GRT on near-coastal waters.
- e. A designated duty engineer limited to vessels of not more than 3,000kW (4,000hp), endorsed in accordance with STCW III/1, is authorized for service as OICEW on vessels of not more than 500 GRT on near-coastal waters.
- f. 46 CFR 15.1103(a) may apply.
- g. See B6.A.3.b(4)(d)&(e) for Issuance of COI with reduced manning based on automated engineering systems.

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CHAPTER 3: MANNING REQUIREMENTS FOR CREDENTIALLED OFFICERS

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**CHAPTER 3: MANNING REQUIREMENTS
FOR CREDENTIALLED OFFICERS**

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PART B: VESSEL MANNING**CHAPTER 3: MANNING REQUIREMENTS FOR CREDENTIALLED OFFICERS****A. Introduction. (2014)**

Part B, Chapters 1-7 (legacy Chapters 20-26), has been structured to interlink various elements affecting the safe manning and watchkeeping on U.S. vessels and should be referenced comprehensively. Refer to paragraph B1.A for a summary of all Chapters. This Chapter provides supplementary guidance on the manning requirements for credentialed officers, as well as a detailed discussion on the impact of international standards.

B. Impact Of International Standards. (2014)

The combined effect of several international conventions significantly impact manning standards for credentialed personnel on U.S. documented vessels operating beyond the boundary line. A conceptual understanding of the relationship between the fundamentals of the manning level provisions relating to the establishment of crew complement and the certification requirements for the requisite crew is essential to the administration of the safe manning principles. The manning levels on U.S. documented vessels are derived from statutory and regulatory requirements, in concert with official directives.

1. Officer's Competency Certificates Convention (OCCC) 1936. (2014, 2017)

The OCCC is implemented in 46 U.S.C. 8304 requiring persons serving in the capacity of master, mate, or engineer on any vessel operating on the high seas (i.e., operating beyond the boundary line) of 200 GRT or over to hold a certificate of competency issued under 46 U.S.C. 7101 appropriate for the route and tonnage of the vessel. The OCCC differs from other conventions in that various definitions are presented, which associate positions such as navigating officer and engineer officer in charge of a watch with any person that is actually in charge of the navigation or maneuvering of a vessel or running of a vessel's engines, respectively. In essence, this means that any person performing duties as defined under the Convention must be the holder of an appropriate officer endorsement, and not merely a merchant mariner's document/credential or rating endorsement. This doctrine serves as the statutory framework for the prescription of a distinct tonnage threshold to be applied as the basis for determining the minimum number of credentialed officers required for the safe operation of a vessel. The OCCC differs from other international instruments in relation to the applicability of the U.S. Regulatory Measurement System versus the measurement system of the International Convention on Tonnage Measurement of Ships, 1969, otherwise known as the Convention Measurement System. Accordingly, for vessels that have requested and received a GRT measurement, the Secretary is required to use the Regulatory Measurement System tonnage as the basis for determining the required number of credentialed officers in a crew complement (46 U.S.C. 14305). For vessels measured solely under the Convention Measurement System, the GT ITC is used to apply manning requirements. Mariners engaged to perform the duties in this capacity, as required by statute or regulation, are obliged to comply with the training and certification requirements of STCW, as applicable (see paragraphs B.2 and B.3 of this Chapter).

NOTE: See NVIC 02-13 for guidance on implementing the Maritime Labour Convention, 2006. (2017)

PART B: VESSEL MANNING**CHAPTER 3: MANNING REQUIREMENTS FOR CREDENTIALLED OFFICERS****2. International Convention Of Standards Of Training, Certification And Watchkeeping For Seafarers (STCW) 1978, as amended. (2014)**

The U.S. regulations (46 CFR Parts 10, 11, 12, 13, and 15) parallel the provisions in STCW regarding the qualification and training requirements for watchstanding personnel. Through various amendments, STCW prescribes minimum standards relating to training, certification and watchkeeping for seafarers, which Parties are obliged to meet or exceed. Although STCW does not include specific manning level requirements, it does impact manning decisions where certification and training are concerned. Except as noted in 46 CFR 15.1101(a)(1) and (2), the STCW regulations apply to seagoing vessels as defined in 46 CFR 10.107. As discussed in 46 CFR 15.1103, onboard a seagoing vessel operating beyond the boundary line, as described in 46 CFR Part 7, no person may employ or engage any person to serve, and no person may serve, in a position requiring a person to hold an STCW endorsement, including master, chief mate, chief engineer officer, second engineer officer, officer of the navigational or engineering watch, or GMDSS radio operator, unless the person serving holds an appropriate, valid STCW endorsement issued in accordance with 46 CFR Part 11. Mariners engaged to perform certain shipboard duties, as required by statute or regulation, are obliged to comply with the training and certification requirements of STCW, as applicable (see paragraph B.3 of this Chapter).

NOTE: 2010 STCW Amendments, Transitional Provisions.

The 2010 STCW Amendments came into force on 1 January 2012, including the new requirements for minimum rest hours and record of hours of work. In many cases, there is a five-year transitional period, until 1 January 2017*, to allow for a phased in implementation of the provisions. However, in some cases (e.g. security endorsements) implementation is sooner. Attention must be paid to these entry into force dates to ensure appropriate compliance. Nevertheless, after 1 January 2017*, all mariners serving on vessels subject to STCW must meet the STCW Convention standards, including the 2010 Amendments. The International Maritime Organization (IMO) issued Circulars STCW.7/Circ.16, STCW.7/Circ.17, and STCW.7/Circ.21 which provide clarification of the transitional provisions and advice (for Port State Control Officers) on the transitional arrangements leading up to full implementation of the 2010 Amendments to the STCW Convention and Code on 1 January, 2017*. (2014)

PART B: VESSEL MANNING**CHAPTER 3: MANNING REQUIREMENTS FOR CREDENTIALLED OFFICERS**a. Deck Department Structure. (2014)

STCW identifies three licensed deck officer positions: master, chief mate and officer in charge of a navigational watch (e.g., mate). Refer to Chapter B2 for Manning and STCW Certification Reference Tables.

STCW Regulation	STCW Capacity	Factors
II/1	Officer in Charge of a Navigational Watch (OICNW)	Seagoing vessels of 500 GT ITC or more.
II/2	Master and Chief Mate	Seagoing vessels of 500 GT ITC or more.
II/3	Master and OICNW *See II/3.1 & .2 for vessels not engaged on near-coastal voyages	Seagoing vessels of less than 500 GT ITC engaged on near-coastal voyages.

b. Engine Department Structure. (2014, 2017)

STCW identifies three licensed engineer officer positions: chief engineer, second engineer officer (equivalent to a U.S. credentialed first assistant engineer), and officer in charge of an engineering watch (equivalent to a U.S. credentialed second or third assistant engineer or designated duty engineer). Refer to Chapter B2 for Manning and STCW Certification Reference Tables.

STCW Regulation	STCW Capacity	Factors
III/1	Officer in Charge of an Engineering Watch (OICEW)	Seagoing vessels powered by main propulsion machinery of 750 kW (1,000 hp) propulsion power or more.
III/2	Chief Engineer and Second (First Assistant) Engineer Officer	Seagoing vessels powered by main propulsion machinery of 3,000 kW (4,000 hp) propulsion power or more.
III/3	Chief Engineer and Second (First Assistant) Engineer Officer	Seagoing vessels powered by main propulsion machinery of between 750 kW (1,000 hp) and 3,000 kW (4,000 hp) propulsion power.

PART B: VESSEL MANNING**CHAPTER 3: MANNING REQUIREMENTS FOR CREDENTIALLED OFFICERS**

(1) Designated Duty Engineer (DDE). Under U.S. provisions, if appropriately endorsed in accordance with the applicable STCW requirements, a DDE license or endorsement authorizes service as chief (III/2 or III/3) or assistant engineer (III/1) on vessels of not more than 500 GRT (GT ITC if GRT is not assigned) in the following manner:

(a) A DDE limited to vessels of not more than 1000 hp or 4000 hp may serve only on near coastal, Great lakes, or inland waters;

(b) A DDE with no horsepower limitations may serve on any waters.

NOTE: The term designated duty engineer (DDE) employed under U.S. regulations is not synonymous with the similarly used term in STCW. The term DDE in U.S. regulations specifically refers to a national engineer officer endorsement (46 CFR 11.524) and authorizes service as a chief or assistant engineer on vessels of less than 500 GRT within certain restrictions (46 CFR 15.915). Whereas, DDE in STCW pertains to an engineering duty status in a periodically unmanned engine-room under Regulation III/1. However, as provided in 46 CFR 11.524, an engineer officer nationally endorsed as DDE may qualify for an STCW endorsement (III/1, III/2, and/or III/3). (2014)

(2) Electro-Technical Officer (ETO). Although the Coast Guard has amended the regulations to facilitate the issuance of ETO endorsements in accordance with STCW Regulations III/6, there is no corresponding regulation to require an ETO under the provisions of safe manning. However, should the COI or SMD stipulate a specific carriage requirement or if an ETO is voluntarily carried, the persons serving in that capacity should be duly endorsed. See MSIB 006-17.

c. Additional Requirements. (2014, 2017)

(1) Basic Training (46 CFR 15.1105). Onboard a seagoing vessel to which this section applies, no person may assign a shipboard duty or responsibility to any person who is serving in a position that must be filled as part of the required crew complement or who is assigned a responsibility on the muster list, and no person may perform any such duty or responsibility, unless the person performing it can produce evidence of having:

(a) Received appropriate approved basic training or instruction as set out in the standards of competence under STCW Regulation VI/1, with respect to personal survival techniques, fire prevention and fire-fighting, elementary first aid, and personal safety and social responsibilities; and

(b) Maintained the standard of competence under STCW Regulation VI/1, with respect to personal survival techniques, fire prevention and fire-fighting, elementary first aid, and personal safety and social responsibilities, every 5 years.

PART B: VESSEL MANNING**CHAPTER 3: MANNING REQUIREMENTS FOR CREDENTIALLED OFFICERS**

- (2) Lifeboatman (46 CFR 15.404(e) and (g)). Every person assigned duties as a lifeboatman must hold a credential attesting to such proficiency. Persons serving on vessels subject to the STCW Convention must also hold an appropriate STCW endorsement (VI/2) in proficiency in survival craft and rescue boats other than fast rescue boats (PSC), or in proficiency in fast rescue boats.
- (3) Tankerman. See 46 CFR 15.860.
- (4) Passenger Vessels On International Voyages. In accordance with 46 CFR 15.1103(f), onboard a passenger ship, as defined by the Convention for the Safety of Life at Sea, 1974, as amended (SOLAS), on an international voyage, any person serving as master, chief mate, mate, chief engineer, engineer officer, and any person holding a license, MMD, or MMC and performing duties relating to safety, cargo handling, or care for passengers, must meet the appropriate requirements of Regulation V/2 of the STCW Convention. These individuals must hold documentary evidence to show they meet these requirements. 46 CFR 11.1105 and 12.905 set out similar requirements.
- (5) Medical Certificates. After 1 January 2017, all persons employed or engaged onboard vessels to which STCW applies must hold a medical certificate valid for 2 years unless the mariner is under the age of 18, in which case the maximum period of validity is 1 year (46 CFR 15.401(c)/15.1103(h)). If a mariner's medical certificate expires during a voyage, it will remain valid until the next United States port of call, provided that the period after expiration does not exceed 90 days (46 CFR 15.1103(h)(3)). See page ANNEX-11 for additional information and transitional provisions.

NOTE: For ships subject to the Polar Code, reference CG-OES Policy Letter 01-16: Guidelines for Training of Personnel on Ships Subject to the International Code for Ships Operating in Polar Waters (Polar Code). (2017)

- d. Near-Coastal Voyages. (2014, 2017)
 - (1) Domestic Near-Coastal Voyages. The application of STCW to vessels on domestic voyages is not a result of the 1995 Amendments. STCW, as adopted in 1978 and as ratified by the United States in 1991, applied to personnel serving on "seagoing vessels," not only vessels on international voyages. Consequently, the Coast Guard is not able to provide a general exemption for seagoing vessels on domestic-only voyages. However, as provided in 46 CFR 15.105(g), personnel serving on the following small vessels engaged exclusively on domestic, near-coastal voyages are in compliance with 46 CFR Subpart K and are, therefore, not subject to further requirements for the purposes of the STCW Convention (also see paragraph B3.B.3.b):
 - (a) Small passenger vessels subject to Subchapter T or K of title 46, CFR.

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- (b) Vessels of less than 200 GRT (other than passenger vessels subject to Subchapter H of title 46 CFR).
- (c) Uninspected passenger vessels (UPVs) as defined in 46 U.S.C. 2101(42)(B). Under 46 CFR 15.105(h), personnel serving on vessels identified in paragraphs B3.B.2.d.1.a and b may be issued, without additional proof of qualification, an appropriate STCW endorsement on their credential when the Coast Guard determines that such an endorsement is necessary to enable the vessel to engage on a single international voyage of a non-routine nature. The STCW endorsement will be expressly limited to service on the vessel or the class of vessels and will not establish qualification for any other purpose.

NOTE: A Panama Canal transit constitutes an international voyage (see Historical and Statutory Notes, 46 U.S.C.A. 114 [West 2007]). (2017)

- (2) Foreign Near-Coastal Voyages. Foreign Administrations which are signatory to the STCW Convention may accept, by means of a bi-lateral agreement with the United States, the near-coastal STCW endorsements issued to U.S. mariners for service on vessels regularly engaged on voyages in the near-coastal waters of that Administration. In this case, U.S.-credentialed mariners will be allowed to utilize STCW near-coastal endorsements to work on U.S. vessels only when engaged on near-coastal voyages as defined by that foreign Administration. Under no circumstances shall the 200-nautical mile limitation on a credential be increased.
 - (a) While the U.S. is in the process of entering into a bi-lateral agreement described in paragraph (2) above and U.S. documented vessels regularly engage on near-coastal voyages off the coast of another Administration, the United States' near-coastal endorsement may be used until a bi-lateral agreement can be implemented. In these cases, a U.S.-near-coastal endorsement with a corresponding STCW endorsement should be sufficient for service within any limitations specified on the credential until a bi-lateral agreement between the two countries is implemented.
 - (b) If a foreign Administration has not defined near-coastal voyages or proposed variations to the STCW competence, U.S.-credentialed seafarers serving on vessels regularly engaged in the vicinity of that foreign Administration should hold the appropriate STCW endorsement and meet the STCW competence applicable to seafarers serving on ships not engaged on near-coastal voyages. This is consistent with the STCW provisions of Regulation I/3, paragraph 3, that requires that Administrations for ships that are regularly engaged on near-coastal voyages off the coast of another Party, may prescribe requirements that are at least equal to those of the Party off whose coast the ship is engaged.

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- (c) If a foreign Administration declines to enter into a bi-lateral agreement, but has established near-coastal voyage variations, in compliance with paragraph 1 of STCW Regulation I/3, U.S.-credentialed seafarers may serve on a U.S.-vessel under the authority of a U.S.-issued near-coastal STCW endorsement. Where a mariner is serving on a near-coastal endorsement, he or she should still comply with the near-coastal limitations established by the foreign Administration and, in no case, should that limitation be increased to more than 200 nautical miles.
- (d) The Coast Guard will advise the maritime industry when the United States has entered into bi-lateral agreements with foreign Administrations as described above. The vessel owner/operator and master should be aware of the coastal state's requirements for vessels engaged on near-coastal voyages off the coast of another Party.
- (e) Enforcement of the Canadian Marine Personnel Regulations took effect on October 26, 2013 for U.S. vessels in Canadian waters. These regulations apply to U.S. vessels operating in Canadian waters when enroute to a Canadian port or place. The Canadian regulations stipulate that an individual on watch must hold a certificate/license appropriate to the class of vessel for the voyages on which the vessel is engaged. Although not required by U.S. regulations, the Canadian regulations require that, irrespective of tonnage or length, the authorized representative of a vessel shall ensure that its crew complement consist of an individual credentialed to be in charge of the vessel's machinery unless the vessel has a propulsive power of less than 750 kW (1,000 hp). Accordingly, all personnel (including additional engineering personnel employed to comply with the Canadian regulations) must hold a valid Merchant Mariner Credential issued by the U.S. Although the Canadian Marine Personnel Regulations call for certification in accordance with the International Convention of Standards of Training, Certification and Watchkeeping for Seafarers (STCW), Transport Canada and the Coast Guard have executed a memorandum of understanding (MOU) for the mutual recognition of personnel licensure and certification applicable to each nation's trading vessels while trading in the domestic waters of either the United States or Canada. Therefore, personnel are not required to obtain STCW endorsements when operating in the domestic waters of either the United States or Canada. The following notes may apply when preparing safe manning documentation for subject vessels;
- 1) For certain vessels of less than 200 GRT (or uninspected vessels operating exclusively inward of the Boundary Lines) on voyages to Canada, the Certificate of Inspection or safe manning document may be endorsed to the effect of;

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*CHIEF ENGINEER, ASSISTANT ENGINEERS, OR DESIGNATED DUTY ENGINEERS NOT REQUIRED OTHER THAN ON VOYAGES TO CANADA IN ACCORDANCE WITH DIVISION 4 OF THE CANADIAN MARINE PERSONNEL REGULATIONS.

NOTE: See USCG MSIB 021-12 for additional information. (2014)

- 2) For vessels trading exclusively between the United States and Canada, all references to STCW including the “STCW Grade/Capacity” and “STCW Regulation” fields on the safe manning documentation may be omitted as “N/A” if the “Trading Area” is limited to “Inland U.S./Canada,” “Near-Coastal U.S./Canada,” or “Great Lakes” exclusively.
 - 3) For uninspected towing vessels to receive safe manning documentation endorsed for Periodically Unattended Machinery Space (PUMS), operators may present the OCMI with a Certificate of Class appropriately endorsed for unattended machinery status or meet the U.S. requirements (e.g. 46 CFR Part 62). Alternatively, as Part 62 and MSM Volume III Chapter B6 are not necessarily applicable to uninspected vessels, NVIC 1-78 may be used to establish PUMS.
- e. Exclusive Great Lakes And Inland Voyages. (2014)
The Coast Guard does not consider STCW to apply directly to personnel serving on U.S. vessels operating exclusively on the Great Lakes or other inland waters (see 61 FR 95-062, 59 [March 26, 1996]).
3. International Convention On Tonnage Measurement Of Ships, 1969 (ITC). (2014, 2017)
With the 1995 Amendments to STCW coming into force on 1 February 2002, absent explicit authorization to the contrary, GT ITC is the applicable tonnage for the application of STCW and IMO Resolution A.540(13) is no longer applicable (see the Annex of IMO Resolution A.1073(28), Recommendation on the Use of National Tonnage in Applying International Conventions, adopted 4 December 2013). Accordingly, with the exception of U.S. vessels of less than 1600 GRT operating exclusively to and from U.S. ports (see paragraph B.3.b of this Chapter), use of Regulatory Measurement System tonnages for this purpose is no longer authorized (see ANNEX-22 for COI formatting). See also Appendix 10 of IMO Resolution A.1052(27), Procedures for Port State Control, 2011, adopted 30 November 2011. Therefore, regardless of tonnage, vessels engaged upon international voyages should be manned with appropriately credentialed mariners in accordance with STCW as reflected in the Certificate of Inspection or safe manning documentation. (See paragraph B.1 of this Chapter for discussion on the application of tonnage as the basis for determining the required number of credentialed officers in a crew complement.)

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This figure clarifies that for vessels measured under both 46 U.S.C. Chapters 143 and 145, the Regulatory Measurement System (GRT) is used to determine the number of crew required and, in certain cases depending on voyage and vessel particulars, the Convention Measurement System (GT ITC) is applied for determining the tonnage level of MMC/STCW endorsements.

	Manning: Crew Complement (#)	Credentialing: MMC/STCW Endorsement Tonnage Level
Domestic Voyage / Shoreward - U.S. Boundary Line ^[4] / Any Tons	GRT	GRT
Operates Exclusively to and from U.S. Ports / Seaward - U.S. Boundary Line / < 1600 GRT	GRT	GRT ^[5]
Domestic Voyage / Seaward - U.S. Boundary Line / > 1600 GRT	GRT	GT ITC
International Voyage ^[6] / Seaward - U.S. Boundary Line / Any Tons	GRT	GT ITC

¹For vessels measured solely under the Regulatory Measurement System, the GRT is used to apply manning and credentialing requirements.

²See 46 CFR Part 69, Subpart D, for vessels measured under the Dual Regulatory Measurement System. Specifically, 46 CFR 69.153(a) for the application of manning laws and regulations.

³For vessels measured solely under the Convention Measurement System, the GT ITC is used to apply manning and credentialing requirements.

⁴Including the Great Lakes

⁵GRT is applied to determine the tonnage level of STCW Endorsements for vessels of less than 1600 GRT that operate exclusively to and from U.S. ports.

⁶For voyages to Canada see paragraph B.2.d.(2)(e) of this Chapter.

a. ITC Impact On Specific Vessels. (2014)

Small passenger vessels (SPV) and seagoing tugs are most significantly affected by the ITC. Consider, for example, the impact on a new small passenger vessel which measures in excess of 2500 GT ITC, but measures only 99 GRT by the Regulatory Measurement System. If the vessel remains exclusively in domestic service the master and mates must hold 100 GRT endorsements. If the same vessel engages in international voyages the master and mates must hold credentials with a minimum of 3000 GT ITC endorsements. In essence, the officers of this vessel would need to hold significantly higher-level endorsements when on vessels or voyages subject to STCW.

b. Application of STCW Domestically. (2014)

The Coast Guard has established arrangements for the implementation of STCW domestically, including the application of the Regulatory Measurement System (GRT) in determining the applicability of STCW to mariners employed on U.S. flag vessels

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of more than 200 GRT (500 GT ITC if GRT is not assigned) but less than 1600 GRT that operate beyond the boundary line and exclusively to and from U.S. ports (excluding operations from a foreign port) (see 62 FR 95-062, 123 [June 26, 1997]). Further, in accordance with NVIC 7-00 and 46 CFR 15.105(g)(2), it is the policy of the Coast Guard that some variance is appropriate for personnel serving on U.S. flag vessels less than 200 GRT (500 GT ITC if GRT is not assigned) on domestic voyages beyond the boundary line. The Coast Guard has specifically determined that, for certain small vessels on domestic near-coastal voyages, the scheme of safety provided by the current credentialing program and the inspection and oversight programs for small vessels deliver a level of safety comparable to STCW.

4. The International Convention For Safety Of Life At Sea (SOLAS). (2014, 2017)
The IMO provisions relating to safe manning are covered by regulation in Chapter V of the International Convention for the Safety of Life at Sea (SOLAS), 1974, whose requirements are supported by IMO Resolution A.1047(27) Principles of Safe Manning, adopted in 2011. Specifically, SOLAS Chapter V, Regulation 14 requires each vessel to which Chapter I of SOLAS applies to be "sufficiently and efficiently" manned as evidenced by a Safe Manning Document (SMD) issued by the flag-state. It is important to distinguish between the Principles of Safe Manning, IMO Resolution A.1047(27), and the requirement to maintain a SMD found in SOLAS Chapter V/14. The principles of safe manning apply to all vessels, regardless of size, as a guideline. The requirement to possess a flag-state issued SMD applies to vessels subject to Chapter I of SOLAS (e.g. cargo vessels of 500 GT ITC or more, absent explicit authorization to the contrary, and passenger vessels). To avoid adverse Port State Control action (e.g. detention), regardless of the SMD applicability, operators of vessels on international voyages should observe the guidelines pertaining to the principles of safe manning.
 - a. Inspected Vessels. (2014)
For U.S. flagged inspected vessels, the Certificate of Inspection (COI) serves as the safe manning document. The COI states the minimum number of credentialed officers and crewmembers necessary for the safe operation of inspected vessels, as required by 46 U.S.C. 8101, 46 CFR 15.105 and 15.501.
 - b. Uninspected Vessels. (2014)
It is the responsibility of the owner/operator to ensure that each vessel under their management complies with the manning, certification, and watchkeeping requirements in accordance with all applicable statutes and regulations.
 - (1) Although they are not provided with a COI, certain uninspected vessels that engage on international voyages are required to carry a SMD in accordance with SOLAS Chapter V/14 and should apply for one via the cognizant Coast Guard OCM (46 CFR 15.105). When requesting a SMD, owners/operators should refer to Chapter B1 for additional guidance. When preparing a SMD, the OCM should follow the sample format provided in the Annex to this Volume.

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- (2) When engaged on international voyages, those uninspected vessels which are not subject to the specific requirements of SOLAS Chapter V/14 are encouraged to request a permissive SML to document flag-state approval of the vessel's manning levels. The SML provides objective evidence to port-state authorities that the subject vessel meets the minimum safe manning requirements as determined by the Flag State. When requesting a SML, owners/operators should refer to Chapter B1 for additional guidance. When preparing a SML, the OCMI should follow the sample format provided in the Annex to this Volume.

5. Principles Of Safe Manning. (2014, 2017)

In establishing the safe manning level to assure a vessel is sufficiently and efficiently manned, SOLAS makes reference to IMO Resolution A.1047(27) which establishes the principles of safe manning and prescribes the form and content of the safe manning document. Resolution A.1047(27) suggests that, except in ships of limited size and limited propulsion power or operating under provisions for unattended machinery spaces, manning levels should be based on the presumption that the master and chief engineer do not stand watch under normal circumstances. It further suggests, subject to exceptions, watchstanders should normally be divided into three watches; and that lookout and helmsman duties are separate (see Section A-VIII/2 of the STCW Code). Refer to Chapters B2 [Manning and STCW Certification Reference Tables (Seagoing Vessels)], B5, and B7 for additional discussion on vessels permitted to maintain a two-watch system.

C. Masters. (2014)

The provisions of 46 U.S.C. 8301, 8304, and 8902, as well as 46 CFR 15.805, require certain self-propelled vessels to have the full-time services of a master. Various statutes, regulations, and customs place continuing responsibilities upon the master of a vessel, whether underway, at anchor, moored, or handling cargo. Except aboard vessels of limited size, or on vessels having dedicated limited routes, these responsibilities cannot be properly discharged when the master is in charge of a watch. It is not therefore expected that the master will stand watches in the regular routine of the vessel, except on vessels of 1,000 GRT or less.

D. Mates. (2014)

A number of statutory provisions in Title 46, U.S. Code, as well as 46 CFR 15.810, dictate the minimum number of credentialed mates required for a vessel. The statutes predominately specify manning level based upon watchkeeping requirements. In establishing the minimum number of mates required for safe operation, the Officer in Charge, Marine Inspection (OCMI) should consider a vessel's total operational requirements, such as cargo handling, emergency evolutions, navigational challenges to include vessel congestion and Vessel Traffic Service areas, visibility restrictions, proximity to navigational hazards, and preventive maintenance in addition to mandated levels of manning. The sample manning scales in Chapters B2 and B7 have been prepared following this philosophy.

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1. Minimum Number Of Mates. (2014, 2017)
 46 U.S.C. 8301 requires a minimum number of mates based on vessel tonnage, length of voyage, and in some cases upon vessel type. These mate manning levels are not discretionary. An OCMI may not authorize fewer mates than provided within this statutory section. As provided in 46 CFR 15.810(f), Commandant (CG-CVC) may consider reductions to the number of mates required when special circumstances allowing a vessel to be safely operated can be demonstrated. Special circumstances may include a national emergency as proclaimed by the President or for the purposes of national defense. However, this does not extend to altering the watch system requirements of 46 U.S.C. 8104 (see 46 U.S.C.A. 8104, 2007, Notes of Decision, Note 6. Number of Watches). Requests should be routed via the OCMI.
 - a. On vessels subject to STCW, the individual meeting the requirement of this section must also hold an STCW endorsement as officer in charge of a navigational watch with the appropriate tonnage for the vessel upon which he or she is operating, except as noted in §15.105(g) of this part for vessels on domestic near-coastal voyages.

2. Master, Mate, Or Engineer Officer Requirement. (2014)
 - a. 46 U.S.C. 8304 requires persons serving as master, mate, or engineer on any vessel of 200 GRT or more operating on the high seas (e.g., beyond the boundary line) to hold a license or MMC officer endorsement appropriate for the route and tonnage of the vessel.
 - b. The above notwithstanding, neither the statute nor the implementing regulations expressly specify the grade of credential required to fill either the requirement for mate or engineer. Chapter B2 of this Volume does provide delineation in respect to the suggested grades for the sample manning scales. In STCW, there is little discretion in specifying the manning levels for vessels subject to the provisions of STCW in relation to the mandatory minimum requirements for certification in the management level capacities. However, in the case of the operational level, STCW makes no delineation between 2nd or 3rd Mate (only OICNW-II/1) and 2nd [U.S.] or 3rd assistant engineer (only OICEW-III/1). In this case, the grade for the mates and engineers at the operational level are variables for the OCMI to consider when establishing the manning level. In doing so, the OCMI should consider the job descriptions and responsibilities for all positions as identified and defined in the relevant safety management system.

3. Working Conditions And Watch Requirements. (2014)
 46 U.S.C. 8104 has a number of subsections concerning working conditions and watch requirements that may result in a higher number of mates being assigned than might otherwise be required by 46 U.S.C. 8301.
 - a. Section 8104(a) requires a minimum rest period for the officer in charge of the navigation watch upon a vessel's departure from port or immediately after the vessel departs. A sufficient number of mates must be assigned to ensure all in-port duties may be accomplished safely and a rested crew is available for departure. 46 CFR

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15.1109 and 15.1111 also provide provisions on watches, work hours, and rest periods for vessels operating beyond the boundary line.

- b. Section 8104(b) provides that credentialed officers on a seagoing vessel of not more than 100 GRT may not be required to work more than 12 hours in a 24-hour period at sea. The Coast Guard, in 46 CFR 15.1111, requires manning levels to ensure that every person assigned duty as officer in charge of a navigational or engineering watch, or duty as ratings forming part of a navigational or engineering watch, or designated safety, prevention of pollution, and security duties onboard any vessel that operates beyond the boundary line must receive:

- (1) a minimum of 10 hours of rest in any 24-hour period; and
- (2) 77 hours of rest in any 7-day period.

Under 46 CFR 15.810, a credentialed mate is normally required in addition to the master. If the voyages do not exceed 12 hours in duration, the OCMI has the discretion to determine if the vessel can be safely operated without a licensed/credentialed mate. The extent of the master's duties in port should be considered when making this determination. If no mate is required and the vessel operates more than 12 hours in a 24-hour period then an alternate crew must be provided to ensure safe operation while the vessel is underway.

- c. Section 8104(c) provides that credentialed officers and unlicensed seamen on Great Lakes towing vessels cannot be required to work more than 8 hours in a day.
- d. Section 8104(d) provides that the credentialed officers and certain unlicensed crew positions on seagoing and Great Lakes vessels of more than 100 GRT must be divided into at least three watches. Therefore, unless the master also stands watch, at least three mates would be required on such vessels. Section 8104(g) modifies this requirement in that it allows a 2-watch system for the credentialed officers and certain crewmembers on seagoing towing vessels, OSVs, and barges engaged on voyages of less than 600 nautical miles.
- e. Sections 8104(k) and (l) require either a 3-watch or 2-watch system for certain fish processing vessels based on inspection requirements, gross tonnage and service entry dates. Section 8104(m) exempts certain fish processing vessels from the above watch system requirements. (See Chapter B5 for watchkeeping arrangements and work hour limits; also see Chapter B7 for uninspected fishing industry vessels manning requirements.)
- f. Section 8104(n) limits a credentialed officer or seamen on a tanker from working more than 15 hours in any 24-hour period. In effect, Section 8104(n) imposes an average work limit of 12 hours in a 24-hour period for credentialed officers or seamen on tankers. OCMI should particularly take this factor into account in establishing

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tanker manning. (See detailed discussion of work hour limits in Chapters B5 and B7 of this Volume.)

- g. Section 8104(o) imposes a 3-watch or 2-watch system for fish tender vessels engaged in the Aleutian trade depending on gross tonnages and entry date or purchase date to serve in the trade.

4. COI/SMD Manning Format – Mates. (2014, 2017)

- a. For vessels of 1600 GRT (3000 GT ITC if GRT is not assigned) or more, the grade of endorsement required for service in the capacity of mate should be indicated in the manning block of the COI or SMD, unless trade restricted endorsements are permitted (see Chapter C2).

Example:

Masters:	1	NOTE: Format the COI with Master First Class Pilot and Mate First Class Pilot for vessels subject to the first-class pilot (FCP) regulations, which operate exclusively within the designated areas of Federal pilotage waters (e.g., Great Lakes). Unless requested, it is not necessary to endorse the COI for first-class pilotage if a transient vessel subject to the FCP regulations is otherwise in compliance. See Section B3.I for details. (2017)
Chief Mates:	1	
Second Mates:	1	
Third Mates:	1	

- b. For vessels of less than 1600 GRT (3000 GT ITC if GRT is not assigned), only the number of mates is required to be indicated in the manning block of the COI or SMD. An endorsement as Chief, Second, or Third Mate authorizes service as a mate where the grade level is not specified.

Example:

Masters:	1
Licensed Mates:	3

E. Chief Engineer.

1. Inspected Mechanically Propelled Vessels (46 CFR 15.820(a)). (2014)

Title 46 CFR 15.820 requires that there be an individual holding an appropriate MMC or license endorsed as chief engineer or other credential authorizing service as chief engineer employed on board the following inspected mechanically propelled vessels:

- a. Seagoing vessels of 200 GRT and over;
- b. Offshore supply vessels of more than 200 GRT; and
- c. Inland (other than Great Lakes) vessels of 300 GRT or more, if the OCMI determines that an individual with a license or the appropriate MMC officer endorsement responsible for the vessel's mechanical propulsion is necessary.

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2. Uninspected Mechanically Propelled Vessels (46 CFR 15.820(b)). (2014)
An individual engaged or employed to perform the duties of chief engineer on a mechanically propelled, uninspected, seagoing, documented vessel of 200 GRT or over must hold an appropriately endorsed license or MMC authorizing service as a chief engineer.
3. On Vessels Subject To STCW. (2014)
Individuals meeting the requirements of this section must also hold an STCW endorsement as chief engineer with the appropriate propulsion power for the vessel upon which he or she is operating, except as noted in 46 CFR 15.105(g) for vessels on domestic near-coastal voyages.

F. Engineers. (2014)

Under 46 U.S.C. 8301, a credentialed engineer must be employed aboard every seagoing vessel of 300 GRT, propelled by machinery, which carries freight or passengers. Further, section 8304 and 46 CFR 15.825 require persons serving as engineers on most seagoing vessels of 200 GRT or more to hold a license or MMC officer endorsement. Although 46 U.S.C. 8101 does permit discretion in establishing a manning scale, the following limitations must be strictly observed in exercising this discretion (see Chapter B6.A.3 for automation):

1. Oceangoing Or Coastwise Vessels Of 200 GRT Or More. (2014)
Taking into account the applications of 46 U.S.C. 8104(d) and 8304(c), the requirements are as described in paragraph B3.F. There should be at least three licensed/credentialed engineers assigned to seagoing vessels of more than 100 GRT to be divided into at least three watches per 46 U.S.C. 8104(d), unless the vessel is automated (Chapter B6.A.3). On a towing vessel, an offshore supply vessel, or a barge to which 46 U.S.C. 8104(g) applies, which are engaged on a voyage of less than 600 miles, the number of licensed/credentialed engineers may be reduced to two and divided, when at sea, into at least two watches.
2. Oceangoing Or Coastwise Vessels Of Less Than 200 GRT (Not Subject To 46 U.S.C. 8301), Except Those Covered By 46 CFR 15.105(g). (2014)
Credentialed engineers are not required by statute. However and regardless of tonnage or inspection status, if, by the nature of a vessel's engineering systems and functionality, an individual is necessarily engaged to perform engineering duties on board a seagoing vessel (subject to STCW, see paragraph B.2.d. of this Chapter), driven by main propulsion machinery of 750kW (1,000 hp) propulsion power or more, then that individual shall hold a valid STCW certificate or endorsement issued in accordance with 46 CFR Part 11 or 12. The failure to ensure that individuals are appropriately certificated in accordance with STCW may result in a violation of 46 CFR 15.1103. The identification of necessary marine engineering tasks, duties, and responsibilities is an important factor for safe vessel operations and a critical component to consider when carrying out manning assessments. The degree of system automation and human interaction/control, and the watchkeeping provisions must also be taken into consideration. Owners/operators are encouraged to coordinate with the cognizant OCMI to ensure that subject vessels are safely manned in accordance with the applicable requirements by appropriately certificated mariners.

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Additional information concerning manning requirements, assessments, and proposals can be found in Chapter B1.

3. Inspected Inland Vessels Of 300 GRT Or More. (2014)

The number of credentialed engineers required must be at least one. Although not required by law, typically an individual endorsed as chief engineer or an endorsement authorizing service as chief engineer (e.g., designated duty engineer) should be assigned. [46 CFR 15.820(a)(3)]

4. Inspected Inland Vessels Of Less Than 300 GRT. (2014)

The scale may vary, from no requirement to a number adequate for the safe operation of the propulsion plant as determined necessary by the OCMI. Automated engineering systems should meet the criteria of 46 CFR Part 62, Navigation and Vessel Inspection Circulars (NVICs) 1-69, 1-78, or 6-84, and the provisions of Chapter B6 of this Volume.

NOTE: Aboard non-seagoing vessels less than 200 GRT, a credentialed chief engineer is not required. Aboard such vessels, the grade(s) of credentialed engineer(s) required by the OCMI shall be commensurate with the vessel's route, the complexity of the engineering plant, and watch system requirements. (2014)

5. On vessels subject to STCW. (2014)

On vessels subject to STCW, the individual meeting the requirement of this section must also hold an STCW endorsement as officer in charge of an engineering watch with the appropriate propulsion power for the vessel upon which he or she is operating, except as noted in §15.105(g) of this part for vessels on domestic near-coastal voyages.

6. COI/SMD Manning Format –Engineers. (2014, 2017)

- a. For vessels of 1600 GRT (3000 GT ITC if GRT is not assigned) or more, the grade of endorsement required for service in the capacity of assistant engineer should be indicated in the manning block of the COI or SMD, unless trade restricted endorsements are permitted (see Chapter C2).

Example:

Chief Engineers:	1
First Assistant Engineers:	1
Second Assistant Engineers:	1
Third Assistant Engineers:	1

- b. For vessels of less than 1600 GRT (3000 GT ITC if GRT is not assigned), only the number of assistant engineers is required to be indicated in the manning block of the COI or SMD. An endorsement as First, Second, or Third Assistant Engineer authorizes service as an assistant engineer where the grade level is not specified.

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Example:

Chief Engineers:	1
Licensed Engineers:	3

G. Master And Mate (Pilot) Of Towing Vessels (see 46 CFR 15.805(a)(5) & 15.810(d)).
(2014, 2017)

Title 46 CFR 15.535(b) and 15.610(a) require that every towing vessel of at least 8 meters (at least 26 feet) in length, measured from end to end over the deck (excluding sheer), must be under the direction and control of a person holding a license or MMC officer endorsement as master or mate (pilot) of towing vessels or as master or mate of vessels of greater than 200 GRT holding either -

1. An endorsement on his or her license or MMC for towing vessels: or
2. a completed Towing Officer's Assessment Record (TOAR) signed by a U.S. Coast Guard approved designated examiner indicating that the officer is proficient in the operation of towing vessels.

This requirement does not apply to any vessel engaged in assistance towing. Because STCW has no specific provisions for towing vessels, seafarers should be certificated and duly endorsed in accordance with STCW for the applicable tonnage, propulsion power, and intended route of service. Refer to Chapter B2 for Manning and STCW Certification Reference Tables and 46 CFR 15.610(a).

Towing vessels are subject to various manning requirements depending largely on route, tonnage, service, and inspection status. The Towing Endorsement Table provides context on which towing endorsements or combinations thereof, are required for various operations. Accordingly, the COI or SMD/SML may be annotated with the applicable Towing Endorsement Category(s) [from the column headers in Figure B3-2] to reflect which towing endorsements are acceptable for service as indicated in the Table below. For example, the COI for an inspected, seagoing, towing vessel (>300 GRT) may be annotated as;
 “Towing Endorsement: Master/Mate endorsement authorizing service on vessels of more than 200 GRT (of appropriate route/tonnage) w/TOAR for the route and familiarization OR Master/Mate endorsement authorizing service on vessels of more than 200 GRT(of appropriate route/tonnage) and Master/Mate Towing Vessel of appropriate route/tonnage.”

Apprentice mate (steersman) may not fill the manning requirements of a towing vessel (46 CFR 10.107).

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Figure B3-2: Towing Endorsement Table (2014, 2017)

Operations	Towing Endorsement Categories			
	Master/Mate Towing Vessel of appropriate route/tonnage ^[1]	Master/Mate endorsement authorizing service on vessels of more than 200 GRT (of appropriate route/tonnage) w/TOAR and familiarization ^[2]	Master/Mate endorsement authorizing service on vessels of more than 200 GRT (of appropriate route/tonnage) <u>and</u> Master/Mate Towing Vessel of appropriate route/tonnage	License or MMC authorizing assistance towing
UTV or Subchapter M, non-seagoing, towing vessel (>200 GRT):	X, or	X	-	-
UTV or Subchapter M, non-seagoing, towing vessel (≤200 GRT):	X, or	X	-	-
UTV or Subchapter M, seagoing, towing vessel (<300 GRT):	X, or	X	-	-
Inspected, seagoing motor vessel engaged in towing (≥300 GRT):	-	X, or	X	-
Other inspected vessel engaged in towing (>200 GRT):	-	X, or	X	-
Other inspected vessel engaged in towing (≤200 GRT):	X, or	X	-	-
Assistance towing vessel	X, or	X, or	X, or	X

SPECIFIC NOTES:

¹Master/mate of towing vessels, limited means an endorsement to operate a towing vessel of less than 200 GRT only within a local area on the Great Lakes, Inland Waters, or Western Rivers designated by the OCMI [46 CFR 11.463(c)].

²For additional information on familiarization, see observation and training requirements in 46 CFR 11.464 and 11.465.

GENERAL NOTES: Includes dual-mode and push-mode ITBs / ATBs.

Push-mode = aggregate tonnage of the combination. STCW may apply depending on route.

Seagoing = operating beyond the boundary line, as described in 46 CFR Part 7. For passenger-carrying barges under tow, see Chapter B2 Section D.

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Title 46 U.S.C. 8903 requires an uninspected passenger vessel to be operated by a credentialed individual as prescribed by regulation.

1. Title 46 CFR 15.605(a) requires every self-propelled uninspected passenger vessel defined by 46 U.S.C. 2101(42)(B) to be under the "direction and control" of an individual holding a license or MMC endorsed as operator of uninspected passenger vessels.
2. Title 46 CFR 15.605(b) requires every uninspected passenger vessel of 100 GRT or more, as defined by 46 U.S.C. 2101(42)(A), to be under the "direction and control" of a credentialed master, pilot, or mate as appropriate.

The intent is that the vessel must be under the physical control or direct supervision of an appropriately endorsed individual. 46 U.S.C. 8104(b) provides that licensed individuals (credentialed officers) on oceangoing vessels of not more than 100 GRT "may not be required" to work more than 12 hours in a 24-hour period while at sea. Credentialed operators serving as OUPV may voluntarily work more than 12 hours in a 24-hour period. However, OCMI's should strongly encourage uninspected passenger vessels operating in excess of 12 hours to have at least two credentialed operators assigned to prevent fatigue. It has been suggested by some operators that a qualified seaman could be left at the helm while the credentialed operator sleeps close by. This position is untenable. As noted above, 46 U.S.C. 8903 mandates the vessel be operated by a licensed individual; the Coast Guard does not have the discretion to allow any unlicensed seaman to control the vessel without supervision. (See Chapters B5 and B7 for further discussion regarding working conditions for these vessels.)

NOTE: An endorsement as OUPV for near-coastal waters limits the holder to service on domestic, near-coastal waters not more than 100 miles offshore, the Great Lakes, and all inland waters. Endorsements issued for inland waters include all inland waters except the Great Lakes (46 CFR 11.467(b)). Endorsements may be issued for a particular local area under 46 CFR 11.467(f) or (g). Personnel serving on Uninspected Passenger Vessels engaged on international voyages must meet the requirements of 46 CFR Part 15 Subpart K. (2017)

I. Pilots. (2014, 2017)

Normally, foreign vessels and U.S. vessels operating on a registry endorsement are under State pilotage authority, and U.S. vessels operating on a coastwise endorsement are under Federal pilotage authority (see 60 FR 20651 [April 27, 1995]). There are two exceptions. The first occurs on the Great Lakes, where all vessels are subject to Federal pilotage under 46 U.S.C. Chapter 93. The second exception occurs where a state fails to provide for pilotage under 46 U.S.C. 8503. In this case, the assertion of Federal pilotage requirements will expressly appear by regulation in 46 CFR Part 15, Subpart J and applies to vessels in foreign trade.

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46 U.S.C. 8502 requires a coastwise seagoing vessel, not sailing on register, to be under the direction and control of a pilot credentialed by the Coast Guard when underway on U.S. navigable waters (i.e., *pilotage waters*). A coastwise seagoing vessel generally means one which is engaged, or authorized by its documentation to be, in domestic trade between one U.S. port and another (for additional information, including Outer Continental Shelf and coastwise points applicability, see U.S. Customs and Border Protection Informed Compliance Publication, Coastwise Trade: Merchandise [January 2009] and 60 FR 57633 [November 16, 1995]). A U.S. documented vessel with only a registry endorsement on its COD would generally be subject to State pilotage authority. For dual or multi-documented vessels, the endorsement authority is determined by examining the voyage leg upon which it is engaged at any given time. For additional information see 46 CFR 15.812, NVIC 8-94 and Part A Chapter 11 of this Volume. For "acting as" pilots (master or mate) specifically 46 CFR 15.812(b)(2), which applies to certain vessels of not more than 1,600 GRT as well as those in non-designated areas of pilotage waters. Quick Reference Tables 15.812(e)(1) and (2) provide a guide to the pilotage requirements for inspected self-propelled coastwise seagoing vessels and coastwise seagoing tank barges (not sailing on register). See 46 U.S.C. 8502(i) for dredge exemptions.

2. First-Class Pilot (*designated areas of pilotage waters*). (2017)

Generally, an individual holding a MMC endorsed as a first-class pilot is compulsory for inspected self-propelled coastwise seagoing vessels greater than 1,600 GRT and coastwise seagoing tank barges greater than 10,000 GRT operating in designated areas of pilotage waters. GT ITC is used if GRT is not assigned. *Designated areas* are those areas within pilotage waters for which first-class pilot's endorsements are issued under 46 CFR Part 11, Subpart G. The areas for which first-class pilot's endorsements are issued within a particular Marine Inspection Zone and the specific requirements to obtain them may be obtained from the OCMI concerned.

a. See 61 FR 68090 [December 26, 1996] for a list of the Eighth District designated areas for which first class pilots endorsements are required.

b. See 46 CFR 15.812(f) for Prince William Sound, Alaska.

J. Radar Observers. (2014, 2017)

Title 46 CFR 15.815 requires that each person in the required complement of deck officers, including the master, on inspected vessels of 300 GRT or over which are radar equipped, shall hold an endorsement as radar observer. Additionally, each person having to hold a license or MMC officer endorsement under 46 U.S.C. 8904(a) for employment or service as master or mate on board a towing vessel of 8 meters (approximately 26 feet) or more in length must, if the vessel is equipped with radar, hold an endorsement as radar observer. Each person who is required to hold a radar endorsement must have his or her certificate of training readily available to demonstrate that the endorsement is still valid. Readily available means that the documentation must be provided to the Coast Guard, or other appropriate Federal

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agency, within 48 hours of a request by the Coast Guard or other agency. The documentation may be provided by the individual, or his or her company representative, electronically, by facsimile, or physical copy. Under 46 CFR 11.480, a radar observer endorsement is valid for 5 years from the date of issuance of the certificate of training from a course approved by the Coast Guard.

K. Automatic Radar Plotting Aid (ARPA). (2014)

Title 46 CFR 15.816 requires that every person in the required complement of deck officers, including the master, on seagoing vessels equipped with automatic radar plotting aids (ARPAs), except those vessels listed in 15.105(f) and (g), must hold an appropriate STCW endorsement valid for vessels equipped with ARPA. If an individual has not received ARPA training, this will be noted on the endorsement as a limitation. A valid MMC without an ARPA limitation is evidence that an officer has completed training in ARPA. See 33 CFR 164.38 for additional requirements pertaining to ARPAs.

L. Radio Officers. (2014)

The requirements for various items of radio communications equipment are controlled primarily by the Federal Communications Commission (FCC). Primary attention must be given to radiotelegraph officers and GMDSS operators, who are licensed by the FCC and the Coast Guard (see 46 U.S.C. Chapter 71 and Section 7318); the requirement for such persons shall be noted on the vessel's Certificate of Inspection (COI) or SMD/SML.

NOTE: This is considered only a reinforcement of FCC authority.

On smaller vessels, radiotelephone installations are permitted; as radiotelephone operators are licensed solely by the FCC, their presence is not required on the COI (FCC requirements for equipment and personnel qualifications are contained in Title 47, CFR).

1. General. (2014)

The controlling authority for radio operators and installations aboard U.S. vessels is generally a function of the FCC. The operation of transmitters of most vessel stations must be performed by a person holding a commercial radio operator license or permit of the class as specified in 47 CFR Parts 13 and 80, Subpart D. Reference MSM Volume II Section B.1.M for additional information.

2. Global Maritime Distress And Safety System (GMDSS). (2014)

46 CFR 15.817 requires that every person in the required complement of deck officers, including the master, on seagoing vessels equipped with a GMDSS, except those vessels listed in 46 CFR 15.105(f) and (g), must provide evidence of a valid STCW endorsement as GMDSS radio operator. For example, if a master and three mates (OICNW) are required then each should be certificated in accordance with STCW IV/2 as GMDSS Radio Operators. This should be reflected on the COI or SMD, as applicable. Similarly, Vessels voluntarily relying on the at-sea maintenance provision of the GMDSS must have

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onboard a licensed GMDSS Radio Maintainer (See 46 CFR 15.818 and 15.1103(e)). Reference MSM Volume II Section E.2.K for additional information.

3. FCC Commercial Radio Operator Licenses (Term of License). (2014)

FCC Radiotelegraph Operator License: Effective May 20, 2013, First and Second Class Radiotelegraph Operator's Certificates will be renewed as Radiotelegraph Operator Licenses valid for the lifetime of the holder, and Third Class Radiotelegraph Operator's Certificates will be renewed as Marine Radio Operator Permits valid for the lifetime of the holder.

GMDSS Radio Operator/Maintainer License (DO, DM, DB): Issued for the holder's lifetime. Prior to March 25, 2008 the license term for was five years. Any holder of a DO that expired prior to March 25, 2008, must still file an application to renew the FCC license within the five-year grace period after expiration.

M. Vessel Security Officer. (2014)

Refer to 46 CFR 15.1113(a) for the Vessel Security Officer STCW requirements. Reference 33 CFR 104.215 for all other vessels subject to 33 CFR Part 104.

N. Personnel With Designated Security Duties. (2014, 2017)

Refer to 46 CFR 15.1113(c) for the STCW requirements applicable to personnel with designated security duties on seagoing vessels which are required to comply with the provisions of the ISPS Code. Reference 33 CFR 104.220 for all other vessels subject to 33 CFR Part 104. See Port Security Advisory 5-09, as amended, for the Minimum Guidelines for Contracted Security Services in High Risk Waters.

O. Security Awareness. (2014)

Refer to 46 CFR 15.1113(e) and (f) for the STCW requirements applicable to security awareness training on seagoing vessels which are required to comply with the provisions of the ISPS Code. Reference 33 CFR 104.225 for all other vessels subject to 33 CFR Part 104.

P. Transportation Worker Identification Credential (TWIC). (2014)

Prior to the Coast Guard Authorization Act of 2010 ("Act"), all mariners required to hold a Merchant Mariner Credential (MMC) were also required to obtain and hold a valid TWIC. Section 809 of the Act, however, permits the Secretary, acting through the Coast Guard, to exempt any mariner who does not require unescorted access to a secure area of a vessel from the requirement to hold a valid TWIC as a precondition of receiving and holding a MMC. Accordingly, the Coast Guard is allowing mariners without a valid TWIC who operate on board vessels that do not have a security plan to acquire and renew a MMC. Specifically, this policy applies to mariners who are inactive or not operating under the authority of their credential, as well as those who serve on vessels that are NOT required to have a vessel security plan. When inspecting subject vessels, the Coast Guard has adjusted its enforcement

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policies so that a mariner who does not hold a TWIC or holds an expired TWIC, but a current MMC, will not be considered in violation of the applicable regulations. See the Annex for TWIC sample.

Q. Person In Charge Of Medical Care. (2017)

Refer to 46 CFR 12.621 for the requirements to qualify for an STCW endorsement as person in charge of medical care. The STCW is not a manning document; it establishes standards for a mariner's professional qualification. The manning laws and regulations of the United States do not require a vessel to have someone specifically designated as a person responsible to take charge of medical care. If by practice, company policy, or to meet Maritime Labour Convention requirements, someone aboard a seagoing ship is designated to take charge of medical care, that individual must meet the standards of competency set forth in STCW Code, Section A-VI/4-2, and be able to produce evidence of having met those standards (see 46 CFR 15.404(i)). Having a mariner onboard with this certification may eliminate potential port-state control problems which could otherwise result. See NVIC 02-13 for additional information regarding the Maritime Labour Convention.

R. Port Relief Officer (PRO). (2017)

Port Relief Officers, commonly referred to as night mates or engineers and "night hawks," are credentialed officers that are often employed in U.S. ports to supplement regular deep-draft crews in carrying out shipboard functions by keeping in-port watches as outlined in STCW A-VIII/2 Part 5. Although they do not execute articles, PROs are considered to be "on duty" and acting under the authority of a MMC when so employed and are subject to all applicable rules and regulations, including employment and service within the restrictions of a credential (46 CFR 15.401(a)) as well as chemical testing (46 CFR Part 16). Credentials, including medical certificate and TWIC as applicable, must be presented to the Master of the vessel at the time of employment in accordance with 46 CFR 15.401(d). Additionally, PROs must receive shipboard familiarization in accordance with 46 CFR 15.405 and 33 CFR 104.220, as well as 46 CFR 15.1105 and 15.1113 if STCW applicable. A description of duties and responsibilities should also be outlined in the safety management system (ISM Code, Part A/3.2).

S. Staff Officers. (2017)

The statutory provisions for Staff Departments on certain U.S. vessels are in 46 U.S.C. 8302. The manning laws and regulations of the United States do not specifically require a staff officers or the establishment of Staff Department. However, when carried, staff officers must be registered by MMC endorsement as specified in 46 CFR Part 11 (46 CFR 15.835). Staff officers are only required to be registered if they serve on Great Lakes vessels (other than those ferrying passengers and cars) and ocean vessels (see exceptions in 46 U.S.C 8302(a)). Reference Part A Chapter 14 of this Manual for additional information regarding Certificates of Registry for Staff Officers. In accordance with 46 U.S.C. 8302(f), a staff officer may not be included in a vessel's COI. See NVIC 02-13 for additional information regarding the Maritime Labour Convention.

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A. Introduction. (2014)

Part B, Chapters 1-7 (legacy Chapters 20-26), has been structured to interlink various elements affecting the safe manning and watchkeeping on U.S. vessels and should be referenced comprehensively. Refer to paragraph B1.A for a summary of all Chapters. There are no statutes that mandate specific numbers of ratings on a U.S. merchant vessel. However, the minimum safe manning levels established by the OCMI must appropriately account for the operational requirements of the vessels and the impact of laws, and international treaties, which may imply or indirectly require the assignment of unlicensed seamen to the crew. Refer to Chapter B3 for a more detailed discussion on the impact of international standards, security requirements, and TWIC.

B. Impact Of International Standards. (2014)

Both STCW and SOLAS, in combination, serve to impose particular requirements for unlicensed seamen.

1. STCW Requirements. (2014)

U.S. regulations (46 CFR Parts 10, 11, 12 and 15) parallel the provisions in STCW regarding the qualification and training requirements for watchstanding personnel. Through various amendments, STCW prescribes minimum standards relating to training, certification and watchkeeping for seafarers, which Parties are obliged to meet or exceed (See Chapter B5 for a more detailed discussion of watchkeeping requirements.). Except for certain vessels engaged exclusively in domestic service, STCW certification requirements may apply to deckhands (<100 GRT). For voyages subject to STCW certain provisions will apply based on GT ITC and others regardless of tonnage, in effect triggering certain MMC requirements. See Chapter B3 for voyages to Canada and the impact of ITC.

NOTE: 2010 STCW Amendments, Transitional Provisions.

The 2010 STCW Amendments came into force on 1 January 2012, including the new requirements for minimum rest hours and record of hours of work. In many cases, there is a five-year transitional period, until 1 January 2017, to allow for a phased in implementation of the provisions. However, in some cases (e.g. security endorsements) implementation is sooner. Attention must be paid to these entry into force dates to ensure appropriate compliance. Nevertheless, after 1 January 2017, all mariners serving on vessels subject to STCW must meet the STCW Convention standards, including the 2010 Amendments. The International Maritime Organization (IMO) issued Circulars STCW.7/Circ.16 and STCW.7/Circ.17 which provide clarification of the transitional provisions and advice (for Port State Control Officers) on the transitional arrangements leading up to full implementation of the 2010 Amendments to the STCW Convention and Code on 1 January, 2017. (2014)

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a. Deck Department Personnel. (2014)

- (1) Each person serving as an able seafarer-deck, or a rating forming part of a navigational watch (RFPNW) on a seagoing vessel of 500 GT ITC or more must hold an STCW endorsement certifying him or her as qualified to perform the navigational function at the support level, in accordance with the STCW Convention.
- (2) Each person serving as a RFPNW on a seagoing vessel of 500 GT ITC or more, subject to the STCW Convention, must hold a STCW endorsement attesting to his or her qualifications to perform the navigational function at the support level (II/4).

NOTE: RFPNW may automatically appear as ROANW on the COI, these terms are synonymous. (2014)

- (3) It is feasible that an ordinary seaman, qualified as a RFPNW and duly certificated in accordance with STCW II/4, could substitute for an Able Seaman in certain shipboard situations. Aside from Able Seamen, who hold RFPNW II/4, all other unlicensed seamen in the deck department assigned to navigational watchkeeping duties, including specially trained ordinary seamen, must be certificated in accordance with STCW Regulation II/4. Because 46 U.S.C. 8702(b) requires that only 65 and 50% , respectively, of the deck crew (excluding credentialed officers) be Able Seamen, the remaining 35 and 50% are not required to hold STCW Able Seafarer-Deck II-5). Pursuant to a request from a vessel owner/operator, OCMI's, at their discretion and as appropriate, can issue a Certificate of Inspection (COI) or Safe Manning Document (SMD) endorsed to permit the substitution of ordinary seamen, qualified and certificated in accordance with STCW II/4, for Able Seamen in accordance with 46 U.S.C. 8702(b). In any case, the COI or SMD will not be endorsed to allow fewer Able Seaman than permitted by 46 U.S.C. 8702(b).

Sample Endorsement:

UP TO TWO ORDINARY SEAMEN WITH A STCW CERTIFICATE ENDORSED FOR REGULATION II/4 'RATING FORMING PART OF A NAVIGATION WATCH' MAY BE SUBSTITUTED FOR TWO ABLE SEAMEN WITHOUT FURTHER ENDORSEMENT AS ABLE SEAFARER-DECK II/5.

Title 46 CFR 15.1103(b) states that onboard a seagoing vessel of 500 GT ITC or more, no person may employ or engage any person to serve, and no person may serve, as an able seafarer-deck, except for training, unless the person serving holds an appropriate, valid STCW endorsement (STCW II/5) issued in accordance with 46 CFR Part 12.

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b. Engine Department Personnel. (2014)

- (1) Each person serving as an able seafarer-engine, or a rating forming part of an engineering watch (RFPEW), on a seagoing vessel driven by main propulsion machinery of 1,000 hp/750 kW propulsion power or more, must hold an STCW endorsement certifying him or her as qualified to perform the marine-engineering function at the support level, in accordance with the STCW Convention.
- (2) Each person serving as a rating forming part of an engineering watch (RFPEW) in a manned engine-room or designated to perform duties in a periodically unmanned engine-room, on a seagoing vessel driven by main propulsion machinery of 1,000 hp/750 kW propulsion power or more, must hold an STCW endorsement certifying him or her as qualified to perform the marine-engineering function at the support level, in accordance with the STCW Convention (III/4).
- (3) Title 46 CFR 15.1103(e) states that, as of January 1, 2017, onboard a seagoing vessel driven by main propulsion machinery of 1,000 HP/750 kW propulsion power or more, no person may employ or engage any person to serve, and no person may serve, as an able seafarer-engine, except for training, unless the person serving holds an appropriate, valid STCW endorsement (STCW III/5) issued in accordance with 46 CFR Part 12.
- (4) Electro-Technical Rating (ETR). Although the Coast Guard has amended the regulations to facilitate the issuance of ETR endorsements in accordance with STCW Regulations III/7, there is no corresponding regulation to require an ETR under the provisions of safe manning. However, should the COI or SMD stipulate a specific carriage requirement, or should a vessel voluntarily carry a ETR, the persons serving in that capacity should be duly endorsed. See MSIB 006-17.
- (5) As provided in 46 CFR 15.105(g), personnel serving on certain small vessels engaged exclusively on domestic, near-coastal voyages are in compliance with 46 CFR Subpart K of Part 15 and are, therefore, not subject to further requirements for the purposes of the STCW Convention [See Chapter B3, Section B.2.d.(1)]. Accordingly, STCW endorsements are not required for engine department ratings engaged on subject vessels, regardless of propulsion power (See NVIC 7-00).

c. Additional Requirements. (2014)

- (1) Basic Training (46 CFR 15.1105). Onboard a seagoing vessel, no person may assign a shipboard duty or responsibility to any person who is serving in a position that must be filled as part of the required crew complement or who is assigned a responsibility on the muster list, and no person may perform any such duty or responsibility, unless the person performing it can produce evidence of having:
 - (a) Received appropriate approved basic training or instruction as set out in the standards of competence under STCW Regulation VI/1, with respect to

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personal survival techniques, fire prevention and fire-fighting, elementary first aid, and personal safety and social responsibilities; and

- (b) Maintained the standard of competence under STCW Regulation VI/1, with respect to personal survival techniques, fire prevention and fire-fighting, elementary first aid, and personal safety and social responsibilities, every 5 years.
- (2) Lifeboatmen (46 CFR 15.404(e) and (g)). Every person assigned duties as a lifeboatman must hold a credential attesting to such proficiency. Persons serving on vessels subject to the STCW Convention must also hold an STCW endorsement (VI/2) in proficiency in survival craft and rescue boats other than fast rescue boats (PSC) except, or in proficiency in fast rescue boats.
- (3) Tankerman. See 46 CFR 15.860.
- (4) Passenger Vessels On International Voyages. In accordance with 46 CFR 15.1103(f), onboard a passenger ship, as defined by the Convention for the Safety of Life at Sea, 1974, as amended (SOLAS), on an international voyage, any person serving as master, chief mate, mate, chief engineer, engineer officer, or any person holding a license, MMD, or MMC and performing duties relating to safety, cargo handling, or care for passengers, must meet the appropriate requirements of Regulation V/2 of the STCW Convention. These individuals must hold documentary evidence to show they meet these requirements. 46 CFR 11.1105 and 12.095 set out similar requirements.
- (5) Medical Certificates. After 1 January 2017, all persons employed or engaged onboard vessels to which STCW applies must hold a medical certificate valid for 2 years unless the mariner is under the age of 18, in which case the maximum period of validity is 1 year (46 CFR 15.401(c)/15.1103(h)). If a mariner's medical certificate expires during a voyage, it will remain valid until the next United States port of call, provided that the period after expiration does not exceed 90 days (46 CFR 15.1103(h)(3)). See page ANNEX-11 for additional information and transitional provisions.
- (6) Other Crewmembers. Crewmembers not specifically required by STCW to be certificated by the Administration (e.g. Steward's Department), must still comply with Basic Training (46 CFR 15.1105) [see Section B.1.c.(1) of this Chapter], as well as certain security requirements [see Chapter B3]. Initial Basic Training is accomplished ashore through Coast Guard approved courses. After the 2017 implementation, continued compliance with Basic Training may be demonstrated through a combination of onboard training/experience and shore based assessment (see 46 CFR 11.302 and 12.602). A MMC may be endorsed for Basic Training (46 CFR 10.109(d)(13)). This is in addition to a valid MMC (for vessels

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of 100 GRT or more) with entry level endorsements (i.e. Wiper/Ordinary Seaman (OS)/Stewards Department-Food Handler (FH)[if applicable], medical certificate [see Section B.1.c.(5) of this Chapter], and TWIC (if applicable, see Chapter B3 paragraph P.). See Section B.1 of this Chapter for vessels <100 GRT.

NOTE: All entry level MMC endorsements are annotated as "Domestic Only" as there is no corresponding international endorsement or rating. Absent a specific STCW requirement for certification by the Administration, these entry level MMC endorsements are suitable for service as described in this Section. (2014)

2. SOLAS Requirements. (2014)

SOLAS Chapter V, Regulation 14 requires each vessel to which Chapter I of SOLAS applies to be "sufficiently and efficiently" manned as evidenced by a Safe Manning Document (SMD) issued by the flag-state. Refer to Chapter B3 for a more detailed discussion on the impact of international standards and SMD provisions.

a. Principles Of Safe Manning. (2014)

In establishing the safe manning level to assure a vessel is sufficiently and efficiently manned, SOLAS makes reference to IMO Resolution A.1047(27) that establishes the principles of safe manning and prescribes the form and content of the safe manning document.

b. Resolution A.1047(27). (2014)

Resolution A.1047(27) acknowledges that watchstanders should normally be divided into three watches; and that lookout and helmsman duties are separate. Where an engineering watch is assigned, it recommends that an officer and at least one unlicensed rating be assigned, unless there is a watch monitoring system (e.g., "dead man alarm") installed on the bridge. For additional information on the Principles of Safe Manning, reference Chapter B3, paragraph B.5. Refer to Chapters B2 [Manning and STCW Certification Reference Tables (Seagoing Vessels)], B5, and B7 for additional discussion on vessels permitted to maintain a two-watch system.

C. Statutes Affecting Ratings. (2014)

U.S. statutes affecting ratings are consistent with international requirements. A number of statutory provisions affect working conditions and watchkeeping requirements for ratings. Chapter B5 of this Volume provides more detailed discussion of working provisions.

1. Merchant Mariner Credential/Document Requirement. (2014, 2017)

Under 46 CFR 15.403, every person below the grades of officer and staff officer employed on any U.S. flag merchant vessel of 100 GRT or more, except those navigating rivers exclusively and the smaller inland lakes, must possess a valid merchant mariner credential (MMC) or merchant mariner's document (MMD) with all appropriate endorsements for the positions served. For technical or industrial positions for which the Coast Guard does

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not require a particular credential, the seaman must possess an MMD endorsed for entry ratings. Certain vessels are exempted from some of the requirements by 46 U.S.C. 8701. Refer to the statute for specific exemption limitations applicable to most fishing industry vessels, barges, yachts, sailing school vessels, oceanographic research vessels, and mobile offshore drilling units (MODU). For additional information on TWIC, see Chapter B3 paragraph P.

NOTE: For the purposes of 46 U.S.C. 8701, the term "smaller inland lakes," as used in 46 CFR 15.403(b)(1), means any inland lake other than the Great Lakes as they are defined in 46 CFR 10.107. (2017)

2. Crew Complement. (2014)

Although there are no statutes that mandate specific numbers of ratings on a U.S. merchant vessel, the minimum safe manning levels established by the OCMI must appropriately account for the operational requirements of the vessels and the impact of laws, and international treaties, which may imply or indirectly require the assignment of unlicensed seamen to the crew. On oceangoing vessels, the number of unlicensed personnel carried must be sufficient for the watch provisions of 46 U.S.C. 8104 and 46 CFR 15.705. 46 U.S.C. 8702 requires at least 75 percent of the crew in each department to be able to understand orders spoken by the officers. Additionally, 65 percent of the unlicensed deck crew must hold MMCs endorsed as able seaman; except vessels authorized to employ a 2-watch system may reduce the percentage to 50 percent.

3. Citizenship Requirements. (2014)

Although a foreign national, e.g., an alien lawfully admitted to the United States for permanent residence, may obtain a MMC, 46 U.S.C. 8103 imposes specific citizenship requirements for U.S. vessels that may significantly limit the number of aliens that may be employed on such vessels. Specifically, Section 8103(b) states that each unlicensed seaman must be a citizen of the United States or an alien lawfully admitted to the United States for permanent residence, and not more than 25 per cent of the total number of unlicensed seamen on the vessel may be permanent resident aliens. (See Chapter B1 for a more detailed discussion of the citizenship requirements.)

4. Seagoing And Great Lakes Merchant Vessels Of More Than 100 GRT. (2014, 2017)

Section 8104(d) provides that the unlicensed sailors and oilers on seagoing and Great Lakes vessels of more than 100 GRT must be divided into at least three watches. Section 8104(g) modifies this requirement in that it allows a 2-watch system to be employed on towing vessels, OSVs, and barges engaged on voyages of less than 600 nautical miles.

NOTE: The Howard Coble Coast Guard and Maritime Transportation Act of 2014, Sec. 316, removed exclusions of various engineering ratings from performing their duties within a two-watch system. The Coast Guard amended 46 CFR 15.705(b) and (c)(1) to harmonize regulations with the statutory changes. These changes came into effect in January 2016. (2017)

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5. Towing Vessels (UTV or Subchapter M). (2014, 2017)
 46 U.S.C. 8104(h) provides that on a vessel to which Section 8904 applies, an individual licensed (credentialed) to operate a towing vessel may not work more than 12 hours in a consecutive 24-hour period except in an emergency. Sections 8104(a), (c), (d), (e), and (g) establish watchkeeping, work hour, and rest period rules for crews on seagoing and Great Lakes towing vessels. A towing vessel's unlicensed crew is not restricted by any of these laws from voluntarily working beyond 8 hours. Unlicensed seamen on inland towing vessels, other than the Great Lakes, that are on voyages of 600 miles or more, have no specified work hour limit or watch schedule provided by statute. However, if the voyage is less than 600 miles, then 46 U.S.C. 8104(g) applies. Regardless of the route of the vessel, or work rules agreed to by crewmembers individually or through collective bargaining, the owner and master are required to provide an adequate and fit watch as discussed in 46 CFR 15.610 and 15.705. Consequently, if the credentialed officers or ratings have no relief and are too fatigued to stand an alert watch, a hazardous condition is created and the owner and/or master should not permit the vessel to continue to operate until the situation is remedied. (See Chapters B5 and B7 for further discussions.)

6. Fish Processing Vessels And Fish Tender Vessels. (2014)
 46 U.S.C. Sections 8104(k), (l), (m), and (o) provide watchstanding requirements for the licensed individuals (credentialed officers) and deck crew on board these types of commercial fishing vessels.

7. Tankers. (2014)
 Section 8104(n) limits a credentialed individual from working more than 15 hours in any 24-hour period. In effect, Section 8104(n) imposes an average work limit of 12 hours in a 24-hour period for credentialed individuals on tankers. Many tankers employ unlicensed personnel to assist in cargo handling responsibilities. These individuals should be included as part of the required manning on the COI if such crewmembers are required for safe cargo operations or are necessary to meet the work hour limits.

D. Deck Department Manning. (2014)

The deck department for a seagoing vessel of at least 100 GRT typically consists of able seamen and ordinary seamen. Inland vessels typically employ "deckhands" for similar functions.

1. Able Seamen And Ordinary Seamen. (2014, 2017)
 Unless specifically provided otherwise, the deck department on a seagoing vessel would normally consist of six able seamen and three ordinary seamen to meet operational requirements including watchstanding, cargo handling and vessel maintenance. The three ordinary seamen may be eliminated from the required crew if the OCMI is satisfied with the installed crew watch call system, the messing and sanitary facilities provided in proximity to the navigation bridge, as well as the suitability of labor-saving deck equipment and mooring arrangements. Unrestricted ocean voyages continue to require at least six able seamen (or four able seamen and two specially trained ordinary seamen) in

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the crew complement to assure adequate watchkeeping. For vessels of a limited size, the OCMI may consider a reduction in the total number of able seamen based on the suitability to meet operational requirements, including: watchkeeping arrangements, maintenance, fitness for duty, and emergency duties. Generally, reductions have been considered for the following categories:

Less than 500 GRT or 6,000 GT ITC - 3 ABs

6,000 GT ITC or more, but less than 20,000 GT ITC - 3 ABs and consideration for additional deck maintenance personnel capable of supplementing the navigational watch.

In any case, the OCMI should be satisfied with the arrangements for keeping a navigational watch as set forth in Section A-VIII/2 of the STCW Code, specifically Part 4-1 – Principles to be Observed in Keeping a Navigational Watch.

Reference Section B.1.a.(3) of this Chapter for additional information concerning the substitution of able seamen with specially trained ordinary seamen on voyages subject to STCW. The OCMI may consider allowing specially trained ordinary seamen (OS) meeting the requirements of NVIC 3-83 as substitutes for up to 35 percent of the required ABs on Non-STCW voyages and 50 percent where a 2-watch system is authorized. See the scales in Chapter B2 for certain vessels allowed 2 ABs based on watch system.

a. Scale Of Employment. (2014)

Able seamen are rated as: unlimited, limited, special, offshore supply vessel, sail, and fishing industry, under the provisions of 46 CFR Part 12. Title 46 U.S.C. 7312 specifies the categories of able seamen (i.e., unlimited, limited, etc.) necessary to meet the requirements of 46 U.S.C. 8702.

- (1) Individuals qualified as able seamen—unlimited may constitute all of the able seamen required on a vessel.
- (2) Individuals qualified as able seamen—limited may constitute all of the able seamen required on a vessel of less than 1,600 GRT or on a vessel operating on the Great Lakes and the Saint Lawrence River as far east as Sept Iles. Individuals qualified as able seamen—limited may constitute not more than 50 percent of the number of able seamen required on board other vessels.
- (3) Individuals qualified as able seamen—special may constitute—
 - (a) all of the able seamen required on a vessel of not more than 500 GRT or on a seagoing barge or towing vessel; and
 - (b) not more than 50 percent of the number of able seamen required on board other vessels.

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- (4) Individuals qualified as able seamen—offshore supply vessel may constitute all of the able seamen required on board a vessel of less than 500 GRT or 6,000 GT ITC engaged in support of exploration, exploitation, or production of offshore mineral or energy resources. Individuals qualified as able seamen—limited may constitute all of the able seamen required on board a vessel of at least 500 GRT or 6,000 GT ITC engaged in support of exploration, exploitation, or production of offshore mineral or energy resources.
- (5) When the service of able seamen—limited or able seamen—special is authorized for only a part of the required number of able seamen on board a vessel, the combined percentage of those individuals so qualified may not be greater than 50 percent of the required number.
- (6) Individuals qualified as able seamen—fishing industry may constitute—
 - (a) all of the able seamen required on a fish processing vessel entered into service before January 1, 1988, and of more than 1,600 GRT but not more than 5,000 GRT; and
 - (b) all of the able seamen required on a fish processing vessel entered into service after December 31, 1987, and having more than 16 individuals on board primarily employed in the preparation of fish or fish products but of not more than 5,000 GRT.

2. Deckhands. (2014, 2017)

The number of deckhands assigned to inspected vessels shall normally be determined on the basis of operational requirements. (See Chapter B2 for a detailed discussion of the factors influencing the number of deckhands on small passenger vessels.) The minimum number of deckhands employed on an uninspected vessel should be based on the operational requirements of the vessel, taking into account any watchstanding requirements for such crewmembers. See B4.B.1. for additional discussion on the impact of international conventions on certain vessels employing deckhands. Under U.S. law, specifically the federal child labor provisions authorized by the Fair Labor Standard Act (FLSA), the general minimum age is 16 years for employment (29 CFR 570.2). The FLSA is specifically applicable to seamen (29 CFR 783.24).

E. Engineering Department Manning.

The engineering complement on a vessel is dependent on a number of factors (e.g., type of propulsion system, number of separate machinery spaces requiring monitoring of equipment, level of machinery automation, and maintenance requirements).

1. Motor Vessels.

Non-automated vessels powered by diesel, gasoline, or gas turbine engines would

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typically employ three to six oilers as qualified watchstanders depending on the complexity and arrangement of the machinery spaces.

2. Steam Vessels.

Non-automated steam vessels would typically assign at least one fireman/watertender on watch for each machinery space containing a boiler. In addition, an oiler and wiper would typically be assigned to each engine room watch depending on the complexity and arrangement of the machinery spaces.

3. Electric Propulsion.

An OCMI should consider the need for the assignment of a sufficient number of electricians for watchstanding or maintenance as part of the required manning for vessels that employ electric propulsion. This manning requirement should be in addition to the manning required for safe operation of the prime mover for generating electric propulsion power.

4. Automated Machinery. (2014)

Engineering manning levels on an automated vessel will be based on an assessment of the automation system installed as detailed in 46 CFR Part 62 and NVICs 1-69, 7-73, 1-78 as amended, and 6-84. The engineering ratings may be completely eliminated depending on the capability and sophistication of the automation system. (Consult Chapter B6 for detailed information concerning requests for manning reductions and operations on such vessels.)

5. Qualified Member Of The Engine Department (QMED). (2014, 2017)

Under 46 CFR 15.404, the holder of an MMD or MMC endorsed with one or more QMED ratings may serve in any unqualified rating in the engine department without obtaining an additional endorsement. A QMED may serve as a qualified rating in the engine department only in the specific ratings endorsed on his or her MMD or MMC. As noted in the preamble to the STCW Final Rule (78 FR 77871), the minimum number of QMEDs are specified in the COI and those serving in such positions must also hold an STCW endorsement when serving on vessels (1,000 HP/750 kW propulsion power or more) subject to the STCW Convention. This means that if the COI requires three QMED-Oilers, for a vessel (1,000 HP/750 kW propulsion power or more) subject to the STCW Convention, then they should hold an STCW endorsement as rating forming part of an engineering watch (RFPEW) in accordance with STCW III/4. This includes QMED-Oilers designated to perform duties in a periodically unmanned engine-room. QMED-Oiler and Fireman/Watertender are not expressly required by 46 CFR 15.404(d)(3) to hold a STCW endorsement as able seafarer-engine (III/5). Enter QMED-Oiler as Oiler on COI.

6. Other QMED Ratings. (2017)

Generally, the ratings of "junior engineer," "pumpman/machinist," or "electrician/refrigeration engineer" are not required on the COI. Similarly, there is no prescriptive manning requirement for a minimum number of persons qualified as able-seafarer-engine (III/5) to be specified on a COI for a vessel subject to the STCW

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Convention. Section (d)(3) of 46 CFR 15.404 requires persons serving on vessels (1,000 HP/750 kW propulsion power or more) subject to the STCW Convention as "junior engineer," "pumpman/machinist," or "electrician/refrigeration engineer" to hold an STCW endorsement as able seafarer-engine (STCW III/5). The minimum manning requirements are prescribed by the OCMI in accordance with 46 CFR 15.801. Other QMED ratings may be substituted for one or more QMED-Oilers when permitted by the COI. For example, if the owner, operator, or master of a vessel requests that the vessel's complement include a junior engineer, the COI will carry the requirement for "oilers" and a notation that "junior engineers may be substituted for one or more oilers." See Chapter B4.F for Maintenance-Persons and Maintenance Departments. In such cases, these persons should hold an STCW endorsement as able seafarer-engine (III/5) as well as RFPEW (III/4) as required by 46 CFR 12.607(a)(2) & (3) when serving on vessels (1,000 HP/750 kW propulsion power or more) subject to the STCW Convention.

NOTE: Employment of these ratings as substitutes for oilers does not remove them from the watchstanding provisions of 46 U.S.C. 8104 and 46 CFR 15.705.

F. Maintenance-Persons And Maintenance Departments.

1. Authority Citations.

46 U.S.C. 8101 and 8104, and 46 CFR 15.705.

2. Background. (2014)

OCMI authority for approving requests for changes in the required crew composition is contained in 46 CFR 15.501 and 15.505. This section states that the COI issued to an inspected vessel specifies the minimum complement of licensed/credentialed individuals and crew considered necessary for the safe operation of the vessel. Among the factors to be considered by the OCMI in determining the minimum crew complement are: installed equipment, degree of automation, use of labor saving devices, and the organizational structure of the vessel. The establishment of a maintenance department and maintenance persons and the ability to delegate crewmembers to different areas, may provide the vessel's master the flexibility to use the crew more effectively while still ensuring that sufficient qualified personnel are carried for continued safe operation of a vessel. When permitted by the Certificate of Inspection, some of the individuals in a vessel's required crew complement may be engaged as maintenance-persons and assigned as deck maintenance-persons or engine maintenance-persons in their respective departments. These individuals would perform maintenance duties within the deck or engine department boundaries and are subject to the crossover prohibition of 46 U.S.C. 8104(e). If the vessel establishes an acceptable maintenance department, the mandated maintenance-persons will be assigned to the maintenance department and are then available as a vessel's maintenance crew who are not subject to the crossover prohibition in 46 U.S.C. 8104(e). The required maintenance-persons shall hold appropriate qualified ratings (AB, QMED, etc.) so that they may be used by the vessel's master to augment navigational or machinery space watches should statutory or regulatory requirements come into effect or situation. For those maintenance-persons not assigned to the maintenance department, watch

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assignments would be governed by departmental affiliation, except under circumstances noted in 46 U.S.C. 8104(f). For maintenance-persons assigned to the maintenance department, watch augmentation will be based on individual qualifications. For example, an individual who holds both deck and engine qualifying ratings working in the maintenance department may be assigned to deck or engine watches at the discretion of the master. During periods in which these maintenance-persons are used to augment navigational or machinery space watches, they become part of the watch and are subject to requirements of 46 CFR 15.705. Engagement of maintenance-persons with the intention of assigning any individual alternately between deck and engineering watch sections on a routine basis is considered a violation of 46 U.S.C. 8104(e). (Consult Chapter B1 for additional information concerning Maintenance Departments.)

3. Manning Requirements For Vessels Engaged On International Voyages. (2014)
 For vessels subject to STCW, personnel required to augment navigational or machinery space watches should hold the appropriate qualified ratings endorsements as required in 46 CFR 15.1103.

4. Acceptance Of Crew Composition Adjustments.
 If a vessel owner or operator requests the certificating OCMI to make crew composition adjustments to allow flexibility in the assignment of watchstanding personnel with the carriage of maintenance-persons, the OCMI should consider the following factors in determining the acceptability of the proposed adjustments:
 - a. Maintenance Plan.
 Implement an acceptable maintenance plan. The OCMI should review the vessel's plan bearing in mind the proposed crew's ability to perform all duties within reasonable or required work hour limits.

 - b. Maintenance Department.
 Implementation of a maintenance department on board the vessel; as appropriate.

 - c. Vessel's Equipment. (2014)
 Nature and reliability of vessel equipment, labor saving devices, alarm systems, and automated systems, including autopilot steering capability. (See Chapter B6; 46 CFR 15.715; and 46 CFR 62.)

 - d. Vessel's Design.
 Vessel arrangement, including visibility from the pilothouse and steering position; (for permitting one AB bridge watch).

 - e. Call Systems.
 Bridge and engine room call systems and whether they include the quarters of maintenance-persons who may be required to augment watches.

 - f. Station Bill.
 Inclusion of the term maintenance-person on the vessel's station bill and muster lists.

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Existence of a vessel operations manual or similar company directives that describe in detail the master's responsibilities regarding the establishment of adequate watches and discretion to utilize appropriately qualified personnel when circumstances require watch augmentation; conditions under which the watch(es) will be augmented including emphasis on keeping a proper lookout; and, the principles contained in the following as they relate to duties, responsibilities, and composition of watches: 46 CFR 15.705 and 46 U.S.C. 8104 (Watches), 46 U.S.C. 8702(d) (AB at the helm), SOLAS Chapter V, Regulation 19 (Automatic pilot), 46 CFR 15.850 and Rule 5 of the Navigation Rules (Lookout) and Subchapter P of Title 33, Code of Federal Regulations (Ports and Waterways Safety).

h. Qualifications Of Personnel. (2014)

Qualifications of the maintenance-persons for proper performance of their duties, including watchstanding. Any request for a reduction in the number of crewmembers based either on automation or the installation of labor saving devices should be approved by Commandant (CG-CVC). (Consult Chapter B6 for detailed information concerning procedures on requests for manning reductions.)

5. COI Sample Endorsements.a. Deck And Engine Maintenance-Person Endorsements. (2017)

If the OCMI is satisfied that adjustments can be made in the required crew composition by the inclusion of deck and/or engine maintenance-persons, the following is representative of the entry to be placed on the vessel's COI:

Able Seamen:	3
Deck Maintenance-persons:	3 ^[1]
Engine Maintenance-persons:	3 ^[2]

[1] Deck maintenance-persons must hold Able Seaman endorsements.

[2] Engine maintenance-persons must hold QMED endorsement as junior engineer, deck engine mechanic, oiler or engineman.

THREE OF SIX MAINTENANCE-PERSONNEL SHALL HOLD QUALIFIED MEMBER ENGINE DEPARTMENT RATINGS WITH ENDORSEMENTS AS EITHER JUNIOR ENGINEERS OR OILERS. THE OTHER THREE MAINTENANCE-PERSONNEL SHALL HOLD ABLE SEAMEN ENDORSEMENTS.

b. Maintenance Department Endorsement. (2014)

If the OCMI is satisfied that adjustments can be made in the required crew composition by the inclusion of maintenance-persons who are assigned to an approved maintenance department, the following is representative of the entry to be placed on an automated vessel's COI where the vessel has been found suitable for

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minimally attended or periodically unattended machinery operation, and equipped with deck labor-saving devices:

Able Seamen:	3
Maintenance-persons:	6 ^[1]
<p>[1] At least three of the required maintenance-persons must hold endorsements as able seamen, except that up to two of these may be qualified as specially trained ordinary seamen in lieu of holding able seaman endorsements. Three maintenance-persons must each hold a QMED endorsement as junior engineer, deck engine mechanic, oiler, or engineman.</p>	

THE ABOVE MANNING IS CONTINGENT UPON THE UTILIZATION OF A MAINTENANCE DEPARTMENT AS INDICATED IN THE VESSEL'S OPERATING MANUAL. ANY SUBSTANTIAL CHANGE IN THE OPERATION OF THIS DEPARTMENT MUST, PRIOR TO IMPLEMENTATION, BE REPORTED TO THE OCMI WHO ISSUED THE VESSEL'S CERTIFICATE OF INSPECTION.

AT LEAST THREE OF THE REQUIRED MAINTENANCE-PERSONS MUST HOLD ENDORSEMENTS AS ABLE SEAMEN, EXCEPT THAT UP TO TWO OF THESE MAY BE QUALIFIED AS SPECIALLY TRAINED ORDINARY SEAMEN IN LIEU OF HOLDING ABLE SEAMAN ENDORSEMENTS. THREE MAINTENANCE-PERSONS MUST EACH HOLD A QMED ENDORSEMENT AS JUNIOR ENGINEER, DECK ENGINE MECHANIC, OILER, OR ENGINEMAN.

The above endorsements would be affixed in addition to any automation endorsement specified by Chapter B6 of this Volume.

G. Cadets, Student Observers & Apprentices. (2017)

(Not on school vessels or training ships.)

See 46 CFR 12.705, 12.707, 12.709 and 12.711 for endorsements issued to cadets, student observers and apprentices respectively. Although persons holding these endorsements can be signed onboard in this capacity and may be considered as seamen, these endorsements do not authorize the holder to replace any of the required crew. Reference 46 CFR Part 310 for the Maritime Administration regulations regarding Merchant Marine Training for cadets and midshipmen.

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A. Watchstanding Requirements On U.S. Vessels. (2014)

Part B, Chapters 1-7 (legacy Chapters 20-26), has been structured to interlink various elements affecting the safe manning and watchkeeping on U.S. vessels and should be referenced comprehensively. Refer to paragraph B1.A for a summary of all Chapters. This Chapter outlines various watchstanding requirements and shipboard working conditions relevant to U.S. vessels.

1. Authority Citations.

46 U.S.C. 8104 and 8702, 46 CFR 15.1111 and 46 CFR 15.705.

2. Definitions. (2014)

The following definitions are consistent with previous Coast Guard policies or regulations.

- a. *Emergency* is an unforeseen development that imposes an immediate hazard to the safety of the vessel, the passengers, the crew, the cargo, property, or the marine environment, requiring urgent action to remove or mitigate the hazard.
- b. *Overriding operational conditions* are circumstances in which essential shipboard work cannot be delayed due to safety, security or environmental reasons, or could not have reasonably been anticipated at the commencement of the voyage.
- c. *Rest* means a period of time during which the person concerned is off duty, is not performing work, including administrative tasks such as chart corrections or preparation of port entry documents, and is allowed to sleep without being interrupted.
- d. *Travel time* to a vessel is considered to be neutral time as it is normally not considered to be “rest,” “off-duty,” or “work” time, but all relevant circumstances should be considered in evaluating whether a mariner complies with the applicable “rest” required by STCW or “off-duty” requirements specified in 46 U.S.C. §8104(a).
- e. *Watch* is activity related to the direct performance of vessel operations, whether deck or engine, where such operations would routinely be controlled and performed in a schedule and fixed rotation. The performance of maintenance or work necessary to the vessel’s safe operation on a daily basis does not in itself constitute the establishment of a watch. However, the latter does count toward the hours of work that can be required by an employer.
- f. *Work* is any activity that is performed on behalf of a vessel, its crew, its cargo, or the vessel’s owner or operator. This includes, but is not limited to, standing watches, performing maintenance on the vessel or its appliances, unloading cargo, or performing administrative tasks, whether underway or at the dock.

The definitions above for “overriding operational conditions” and “rest” are used in situations where STCW applies.

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The master is responsible for ensuring that adequate watches are established for the both at-sea and in-port operations that necessitate watchkeeping personnel, including those whose duties involve designated safety, security and prevention of pollution functions. In exercising this responsibility, the master must take into account applicable statutory and regulatory provisions and international conventions. In addition, the circumstances affecting the safety of the vessel, its crew, its cargo, its passengers, and operational requirements, especially as they relate to pollution prevention must also be considered. In accordance with 46 CFR 15.1109, each master of a vessel that operates beyond the Boundary Line, except those serving on the vessels listed in 15.105(f) or (g), shall ensure observance of the principles concerning watchkeeping set out in STCW Regulation VIII/2 and section A-VIII/2 of the STCW Code. See Section B of this Chapter for discussion on In-Port Watches Of Credentialed Engineers and Section E.1.d of this Chapter for additional discussion on vessels in Lay-up/Shipyard/Drydock (with application beyond STCW).

4. Watchstanding Categories.

A normal watch cycle will include those crewmembers who have functions, duties or responsibilities about vessel operations that are routinely controlled or performed in a scheduled and fixed rotation. Typically, these functions, duties and responsibilities will include the following:

a. Officer In Charge Of A Navigational Watch (Master Or Mate). (2014)

Except on vessels of limited size the provision of qualified deck officers should be such that it is not necessary for the master to keep regular watches. This principle is accepted internationally and is expressed in International Maritime Organization Resolution A.1047(27), "Principles of Safe Manning."

b. Helmsman (Able Seaman Or Specially Trained Ordinary Seaman, RFPNW). (2014)

The required minimum manning level must include sufficient personnel who may be assigned to the navigation watches to steer the vessel. The helmsman should be separate from the look-out, except on small vessels where the helmsman may safely perform both functions. Unless assigned duty as lookout, the helmsman may be assigned to other duties when not required to be physically present at the helm (e.g., when vessel is on auto pilot). On a merchant vessel of 100 GRT or more (with limited exceptions under 46 U.S.C. 8702) an individual with a rating of less than able seaman may not be at the wheel "in ports, harbors, and other waters subject to congested vessel traffic, or under conditions of reduced visibility, adverse weather, or other hazardous circumstances."

c. Look-out (Able Seaman Or Specially Trained Ordinary Seaman, RFPNW). (2014)

It is expected that a dedicated look-out should normally be assigned to each navigational watch to satisfy Rule 5 of the International Regulations for Preventing Collisions at Sea, 1972 and of the Inland Navigation Rules. Rule 5 requires that "Every vessel shall at all times maintain a proper look-out by sight and hearing as

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well as by all available means appropriate in the prevailing circumstances and conditions so as to make a full appraisal of the situation and the risk of collision.” Look-out duties may be performed by the helmsman or the officer in charge of the navigational watch under some circumstances, to the extent that Rule 5 will not be violated. Section A-VIII/2 Part 4-1 of the STCW Code indicates the requirements for individuals serving as look-outs.

d. Officer In Charge Of An Engineering Watch (Chief Engineer, Assistant Engineer, Or Designated Duty Engineer). (2014)

Depending on the level of automation, credentialed engineers would either be assigned to direct watchkeeping assignments within the machinery spaces on a rotating basis or, in the most sophisticated vessels, would be assigned monitoring duties without being obliged to maintain a “live watch” in the machinery spaces. Under such circumstances, the automation system performs a significant amount of the watchstanding functions. The required engineers would be assigned overnight duty to respond to alarms that may occur and potentially make intermittent rounds of the machinery spaces. It is noteworthy that IMO Assembly Resolution A.1047(27) also suggests that the chief engineer would not normally be a watchstander.

e. Qualified Member Of The Engine Department (QMED, RFPEW). (2014)

QMEDs (e.g., oiler, watertender, fireman) would be assigned in a manner similar to the licensed engineers. Non-automated vessels would frequently require QMEDs and non-rated members of the engine department assigned to successive watches. However, QMEDs may be assigned to an alternate work schedule (e.g., day-work) when not required for watchstanding duties in the machinery spaces. Where an engineering watch is assigned, IMO resolution A.1047(27) recommends an engineering officer and engine department rating be assigned, unless the engineering watch officer's status can be monitored from the bridge and assistance immediately dispatched.

f. GMDSS Radio Operator/Radio Officer. (2014)

As discussed in 46 CFR 15.817 every person in the required complement of deck officers, including the master, on seagoing vessels equipped with a GMDSS, except those vessels listed in 46 CFR 15.105(f) and (g), must provide evidence of a valid STCW endorsement as GMDSS radio operator. One of the operators must be designated by the vessel's master as assigned to communicate during a distress situation. Vessels voluntarily relying on the at-sea maintenance provision of the GMDSS must have onboard a licensed GMDSS Radio Maintainer. Vessels without GMDSS will still require radio officers as determined by the FCC.

5. Watchkeeping Arrangements. (2014, 2017)

Current U.S. statutes impose specific watchkeeping requirements on U.S. vessels (46 U.S.C. 8104). Specific provisions for vessels navigating under way and requirements for vessels at anchor can be found in 33 CFR 164.11, 164.13, and 164.19; as applicable. Additionally, STCW Regulation VIII/2 and Section A-VIII/2 detail watchkeeping

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arrangements and principles to be observed. This includes the posting of watch schedules. Subject to specific exceptions, the definition of “merchant vessel” is not limited to a vessel "engaged in trade or commerce" for the purposes of the manning statutes (see 46 U.S.C.A. 8104, 2007, Notes of Decision, Note 5. Merchant Vessels and [UNITED STATES v. BLUE WATER MARINE INDUSTRIES, INC], 661 F.2d 793, 1981).

- a. Seagoing And Great Lakes Merchant Vessels Of More Than 100 GRT. (2014)
 Except for certain fishing industry vessels and yachts, 46 U.S.C. 8104(d) requires merchant vessels of more than 100 GRT, when at sea, to be manned with a three-watch system, and mariners shall be kept on duty successively to perform ordinary work incident to the operation and management of the vessel (See 46 U.S.C. 8104(d) for specific exceptions). This section of the law also states that a mariner cannot be required to work for more than 8 hours in one day. There are certain exceptions to the work-hour limitations relevant to the docking/undocking, conducting emergency drills, actual emergency situations or overriding operational conditions that compromise the safety of the vessel and its passengers and crew in which a mariner can be required to work more than 8 hours in a day (see 46 U.S.C. 8104(f)). Mariners subject to 46 U.S.C. 8104(d) can consent to work in excess of 8 hours in a day, provided there are no violations of the hours of rest provisions. Generally, the three-watch system such as 4-on/8-off provides an optimal approach although non-conformances in the hours of rest can be triggered by periods of additional work if they are not properly planned and managed.

- b. Two-Watch System. (2017)
 On a towing vessel, an offshore supply vessel, or a barge to which 46 U.S.C. 8104(g) applies, which are engaged on a voyage of less than 600 miles, the credentialed officers and crewmembers may be divided, when at sea, into at least two-watches.

While it is beyond the scope of this guidance to generally categorize every aspect of the term “voyage;” historically, a voyage of less than 600 miles has been construed as meaning the entire distance traversed in proceeding from the initial port of destination, stops at intermediate ports while enroute not being considered as breaking the continuity of the voyage (see 54 FR 125-01, 129 [January 4, 1989]). A port does not include an Outer Continental Shelf (OCS) facility as defined in 33 CFR part 140. In examining the particulars of a contemplated voyage, due consideration should be afforded to the applicable elements of the voyage plan, charter agreement, company orders, and surrounding circumstances to include the loading, discharge, and delivery of cargo and/or services.

Additionally, subject to exceptions, 46 U.S.C. 8104(h) permits a master or mate (pilot) operating a towing vessel that is at least 26 feet in length measured from end to end over the deck (excluding sheer) to work not more than 12 hours in a consecutive 24 hour period except in an emergency. The Coast Guard interprets this, in conjunction with other provisions of the law, to permit masters or mates (pilots) serving as operators of towing vessels that are not subject to the provisions of the

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Officers' Competency Certificates Convention, 1936, to be divided into two watches regardless of the length of the voyage (46 CFR 15.705(d)).

Vessels on voyages subject to STCW, which employ a two-watch system, are subject to and should comply with the rest periods under the revised STCW requirements. Any additional period of work has the potential to result in non-conformances during subsequent work periods. When engaging on subject voyages, vessel crew should be prepared to demonstrate compliance with the revised STCW requirements to Port State Authorities (see paragraph E of this Chapter for additional information on the STCW requirements). See Chapter B7 paragraph B.3 and Figure B7-1 for similar circumstances where a two-watch system may be permitted.

c. Fish Processing Vessels (FPVs). (2014)

Credentialed officers and deck crew on FPVs over 5000 GRT must be divided into at least three watches. At least a 2-watch system is required on FPVs of more than 1,600 GRT and less than 5,000 GRT. (See 46 CFR 15.705(e) and 46 USC 8104(k) and (l)).

d. Fish Tender Vessels In The Aleutian Trade. (2017)

The credentialed officers and crewmembers on a fish tender vessel of not more than 500 GRT (or less than 2,500 GT ITC) engaged in the Aleutian trade must be divided into at least three watches. However, if: (1) the vessel operated in the Aleutian trade before September 8, 1990; or (2) the vessel was purchased to be used in that trade before September 8, 1990, and in fact entered into service in that trade before June 1, 1992, the credentialed officers and crewmembers must be divided into at least two watches. See 46 USC 8104(o).

B. In-Port Watches Of Credentialed Engineers. (2014)

There have been conflicting decisions and interpretations concerning whether credentialed engineers are required to be aboard vessels that are not in a fully operational condition. Under 46 U.S.C. 3302, vessels are not obligated to be manned according to the COI when they are "laid up, dismantled, or out of commission." The only area for which the Coast Guard has published an interpretation in this regard is the Great Lakes, where most vessels are laid up each winter. A vessel in this area undergoes a distinct status cycle:

1. Operating Status.

The vessel is in service.

2. Laying-Up Status.

The vessel has completed service and is being "laid-up" for the winter.

3. Laid-Up Status.

Laying-up of the vessel has been completed. The vessel is inoperable and is essentially laid-up and dismantled and "out of commission" for the winter.

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4. Fitting-Out Status.

The lay-up period has ended and the vessel is being prepared for service.

Vessels in laid-up status are exempted by regulations from Coast Guard inspection; therefore, no manning requirements shall be made for them. Vessels in laying-up or fitting-out status should normally be required to have credentialed engineers aboard in the early stages of work, and at any time when plant operation warrants such a requirement (for example, while the vessel is moored with boilers in operation). It is recognized that, in many instances, laying-up and fitting-out cannot be classified in a clear-cut manner; however, an adequate determination generally can be made under these criteria.

C. Work Hour Limitations.

1. Authority Citations.

46 U.S.C. 8104; 46 CFR 15.1111 and 46 CFR 15.710.

2. "Required" Vs "Permitted" Work Hour Limits. (2014)

The current statutory provisions limit the number of hours a credentialed officer or crewmember may be "required" to work, and in some cases also limit the number of hours the individual may be "permitted" to work. When an individual cannot be "required" to work beyond a certain number of hours, any work in excess of those hours must be voluntary. Such work is not considered to be voluntary if the individual works as a result of direct or indirect coercion. The employee's signature on an employment contract or when working under a labor agreement that clearly obligates him or her to work more than the statutory work hour limit is evidence that such work is performed voluntarily. (It should be noted that the statutory work hour limit e.g., the limit in the number of hours during which work may be required, is not necessarily the point at which "overtime" is calculated under a particular employment contract.)

a. Seaman's Right To Refuse.

Under 46 U.S.C. 8104(d) an individual retains the statutory right to refuse to work beyond the 8-hour statutory work hour limit, except in an emergency or other condition listed in 8104(f). Furthermore, work performed beyond the statutory limit, even when performed voluntarily, may be considered excessive and should not be condoned if the individual's performance will be impaired by fatigue. A continuing pattern of excessive work hours provides good cause for reviewing whether the manning complement as stated on the vessel's COI is sufficient for the safe operation of the vessel.

b. Holiday Work.

A seaman also may not be "required" to perform "unnecessary work" on Sundays or on certain holidays when the vessel is in a safe harbor, though this rule does not prevent the master from assigning work to get the vessel underway on a voyage. See 46 U.S.C. 8104(f).

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c. Maximum Permitted Work Hours. (2014)

Under 46 U.S.C. 8104(c), 8104(h), and 8104(n), credentialed officers and crewmembers are not permitted to work beyond a certain number of hours. The individual still cannot be "required" to work over a certain number of hours each day, but these provisions also place a limit on the number of hours the individual can be allowed to work voluntarily. Except in strictly limited circumstances (such as a drill or emergency), the individual subject to the limitation is not permitted, and may not be required, to perform any work if it would result in working beyond the maximum work hour limitation. Vessels subject to STCW requirements have additional work hour limitations as found in A-VIII/1 and discussed in Section E of this Chapter.

3. Duty Status.

46 U.S.C. 8104(a) requires a minimum "off duty" (e.g., rest) period for officers assigned to take charge of the navigational watch when leaving or immediately after leaving port. The Coast Guard interprets "off duty" within this statute to mean: A continuous period of time that is available to the seaman for rest, during which no work is assigned. A vessel's officer who serves as night mate while the vessel is in port is considered to be "on duty" whether or not engaged in work during that time. The hours during which the officer is aboard in such capacity would determine the number of hours worked during that day, and the point at which the officer was relieved would establish the beginning of the off duty period. Similarly, a mariner who has worked aboard vessel during the day and stays aboard with the watch section at night, on call in case of fire or an emergency, is considered "on duty" within the meaning of 46 U.S.C. 8104. The statutory prohibition precluding more than 8 hours required work per day is considered to apply to those officers and crew serving in a night relief watch. However, the presumption is that, by accepting such employment, the night watch has voluntarily assumed the additional duty.

4. Exceptions To Work Hour Limitations.

Where statutory provisions impose work hour limitations, circumstances are described under which the limits are not binding. The master may require seamen to work when the crew is needed for "(1) maneuvering, shifting the berth of, mooring, or unmooring, the vessel; (2) performing work necessary for the safety of the vessel, or the vessel's passengers, crew, or cargo; (3) saving life on board another vessel in jeopardy; or (4) performing fire, lifeboat, or other drills in port or at sea." On the other hand, when there are statutory limits on the number of hours a seaman may be "permitted" to work, the circumstances under which those limits may be broken are restricted to responding to emergencies or for drills. While there are no strict definitions for what constitutes an emergency for purposes of exceeding a work hour limitation, the Coast Guard considers the best guideline to be the generally understood meaning of an emergency: An unforeseen development which imposes an immediate hazard to the safety of the vessel, the crew, the cargo, property, the passengers or the marine environment, requiring urgent action to remove or mitigate the hazard

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There are several statutes that impose maximum required or permitted work hours within a specific time period (e.g., "day," 24 hour period, etc.). Where the term "day" is used in the context of work hour limits, the Coast Guard continues to accept a long-standing interpretation rendered by the United States Attorney General that the word "day," as used in the predecessor to 46 U.S.C. 8104, is construed to mean a calendar day of 24-hours beginning at midnight. [(39 U.S. Op. Att'y Gen. 112, opinion dated October 5, 1937)]. Where a provision establishes a work hour limit within a consecutive time period, such as a 24-hour consecutive period, there is no specified starting point from which the 24-hour period is measured; except in an emergency or a drill, the prescribed work hour limit may not be exceeded within any given 24 hour consecutive period.

a. Uninspected Passenger Vessels (<100 GRT) [46 U.S.C. 2101(42)(B)]. (2014)

There are no specific statutory or regulatory work hour limits which apply to the credentialed operators on these vessels, although 46 U.S.C. 8104(b) provides that a licensed individual on a seagoing vessel of not more than 100 GRT may not be required to work more than 12 hours in a 24-hour period at sea. The Coast Guard as a matter of policy considers 12 hours to be the practical limit for how long an individual can safely exercise direction and control of the vessel. While there may be individuals who can routinely and safely perform work for periods in excess of 12 consecutive hours, the rigors of watchkeeping increase the likelihood of fatigue beyond such period, and such a practice should be discouraged as imprudent. Depending upon the specific circumstances, an owner who compels a credentialed operator to work, or a credentialed operator who voluntarily works on an uninspected passenger vessel beyond 12 hours may be engaged in negligent operation of the vessel for failing to maintain an adequate watch. (See Chapters B3 and B7 for further discussions.)

b. Tankers. (2014)

A credentialed officer or seaman may not be permitted to work more than 15 hours in any 24-hour period, or more than 36 hours in any 72-hour period, except in an emergency or a drill. In other words, any individual employed on board in any capacity is limited to an average of 12 hours of work maximum per day, but can never exceed 15 hours of work in a 24-hour period. If an individual works more than 12 hours in one day that individual must work less than 12 hours on other days to ensure he or she does not work more than 36 hours in any three day (72-hour) period. The work hour limit applies to the master as well as other individuals employed on board tankers. The master is recognized to have a unique status on board the vessel. The master's duties, and the overall responsibility associated with overseeing the safety of the vessel and its crew, are continuous. However, the master, like any member of the crew, can suffer from fatigue. Although it may be difficult to fully predict or anticipate the master's workload, the master must regulate his or her own duties and work hours to mitigate the possibility of fatigue, particularly if the master is included in a watch section as an officer of the navigational watch. 46 U.S.C.

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8104(n) exempts the master as it does the other credentialed officers and seaman, when work hours must be exceeded in the case of an emergency or drill.

c. Seagoing And Great Lakes Merchant Vessels Of More Than 100 GRT. (2014)

A credentialed officer or seaman in the deck or engine department on these vessels may not be required to work more than 8 hours in one day, except when needed for vessel maneuvers, "necessary" (e.g., essential, safety related) work, lifesaving, or drills. See 46 U.S.C. 8104(d), (e) and (f). This does not preclude seamen from voluntarily working beyond 8 hours and possibly becoming fatigued. OCMI's should consider all relevant information as described in Chapter B1 in establishing the required manning level. While there is no definitive basis for a maximum work hour limit for vessel crewmembers, the OCMI has the discretion to impose manning levels based on a specified reasonable work hour limit taking into account fatigue and other human factors. A twelve hour work day, applied in a manner similar to the work hour limit for tankers, is considered a reasonable work hour limit for other classes of vessels. (See Section K of Chapter B1 for additional discussion.)

d. Commercial Fishing Vessels. (2014)

Although there are no statutory work hour limit provisions regarding these vessels, there are requirements concerning watchkeeping arrangements that apply to the credentialed officers and deck crew on the various uninspected fishing industry vessels. (See Section A.5 of this Chapter and Chapter B7.)

D. Crossover Prohibition.

1. Authority Citation.

46 U.S.C. 8104(e).

2. Deck And Engine Departments. (2014)

On merchant vessels of more than 100 GRT (with certain exceptions as stated in 46 U.S.C. 8104(d), and towing vessels operating on the Great Lakes and connecting waters, a seaman may not be engaged to work alternately in the deck and engine departments; nor may a seaman be required to work in the engine department if he or she has been engaged to work in the deck department, and vice versa. However, this rule does not prevent the seaman from being required to work in a department for which he or she was not engaged when needed for vessel maneuvers, "necessary" (e.g., essential, safety related) work, lifesaving, or drills. See 46 U.S.C. 8104(e) and (f).

- a. When permitted by the Certificate of Inspection, some of the individuals in a vessel's required crew complement may be engaged as maintenance-persons and assigned as deck maintenance-persons or engine maintenance-persons in those respective departments. These individuals perform maintenance duties within the deck or engine department boundaries and are subject to the crossover prohibition of 46 U.S.C. 8104(e).

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- b. The required maintenance-persons should hold appropriate qualified ratings (e.g., Able Seaman, QMED, etc.) so they may be used to augment navigational or engine room watches should the need arise. During periods in which these maintenance-persons are used to augment watches, they become part of the watch and are subject to the appropriate watch rotation requirements.

3. Maintenance Department. (2014)

With the increased use of automated systems, labor saving devices, and scheduled shoreside maintenance programs, some vessel operators have used shipboard management innovations to provide greater flexibility in the use of available crewmembers. Assignment of maintenance-persons to a Maintenance Department allows these crewmembers to be used to perform work throughout the vessel on a regular schedule. However, with suitable qualifications, they can also be available to augment the watch as watchstanders as circumstances may warrant (such as periods of restricted visibility, or a failure in an automated system). When authorizing implementation of a Maintenance Department on a particular vessel, the OCMI should condition final approval on review of the vessel's operational requirements, and crew workload, following a trial period of up to a year. (See Chapters B1 and B4 for maintenance department discussion and sample manning scales for vessels employing maintenance-persons.)

E. International Standards Relating To Working Conditions.

1. International Convention On Standards Of Training, Certification And Watchstanding For Seafarers (STCW) 1978, as amended (46 CFR Part 15 Subpart K). (2014, 2017)

The 2010 amendments to the STCW Convention include changes to the hours of rest requirements, 46 CFR 15.1111 and STCW Regulation VIII/1, applicable to personnel working on board U.S. vessels subject to STCW. Specifically, the amended rest hour requirements are as follows: (1) Expanded the application for hours of work and rest periods for mariners to include all personnel with designated safety, prevention of pollution, and security duties onboard any vessel; (2) changed the weekly rest hours requirements from 70 hours to 77 hours; and (3) required the recording of hours of rest. While STCW is not a manning convention, it clearly impacts manning decisions in terms of requiring certain skills to be possessed by crewmembers performing certain functions. STCW also lists a number of criteria to be taken into account and principals to be observed in keeping a watch. Responsibilities of companies are outlined in 46 CFR 15.405, 15.1107, 15.1109 and STCW Regulations I/14 and VIII/2. The Coast Guard published Guidelines on company roles and responsibilities in support of the STCW in NVIC 4-97. NVIC 4-97 continues to serve as guidance and supplements existing regulations and the STCW Convention and Code.

a. Work Hours And Rest Periods. (2014, 2017)

In accordance with the provisions of 46 CFR 15.1111 and section A-VIII/1 of the STCW Code, all persons who are assigned duty as officer in charge of a watch or as a

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rating forming part of a watch and those whose duties involve designated safety, prevention of pollution and security duties shall be provided with a rest period of not less than:

- (1) a minimum of 10 hours of rest in any 24-hour period; and
- (2) 77 hours in any 7-day period.

This includes, for example, the Master and non-watchstanding engineering personnel in an unattended machinery space. The hours of rest may be divided into no more than two periods, one of which shall be at least 6 hours in length, and the intervals between consecutive periods of rest shall not exceed 14 hours.

b. Exceptions For Emergencies. (2014)

The requirements for rest periods need not be maintained in the case of an emergency or in other overriding operational conditions. Musters, fire-fighting and lifeboat drills, and drills prescribed by national laws and regulations and by international instruments, shall be conducted in a manner that minimizes the disturbance of rest periods and does not induce fatigue. Nothing in this guidance should be deemed to impair the right of the master of a vessel to require a seafarer to perform any hours of work necessary for the immediate safety of the vessel, persons on board or cargo, or for the purpose of giving assistance to other vessels or persons in distress at sea. Accordingly, the master may suspend the schedule of hours of rest and require a seafarer to perform any hours of work necessary until the normal situation has been restored. As soon as practicable after the normal situation has been restored, the master shall ensure that any seafarers who have performed work in a scheduled rest period are provided with an adequate period of rest.

c. Records. (2014)

The master or authorized person is responsible for ensuring that records of daily hours of rest are maintained for each seafarer serving on the vessel. Owners/operators are encouraged to utilize the Model Format for Records of Hours of Work or Hours of Rest of Seafarers developed by the IMO. Each record should be endorsed by the master or authorized person and the seafarer. A copy should be made available to the seafarer. It is recommended that records be retained on-board for each seafarer during their full time on board or for 12 months, whichever is the longer. In an emergency or when unforeseen events occur, changes may be unavoidable. In these cases records should reflect all deviations from the hours of rest schedule.

d. Lay-up/Shipyard/Drydock. (2014, 2017)

The U.S. Coast Guard interprets the provisions of 46 CFR 15.1111 and STCW Chapter VIII (Watchkeeping) as applying to seagoing vessels whose at-sea and in-port operations necessitate watchkeeping personnel, including those whose duties involve designated safety, security and prevention of pollution functions.

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Accordingly, it is the interpretation of the United States that the provisions of STCW Chapter VIII (Watchkeeping), do not apply to U.S. Documented vessels while out-of-service (e.g. laid up, dismantled, or out of commission) in lay berth, shipyard or drydock, unless expressly provided otherwise.

NOTE: This may also include certain public vessels under interagency agreement.

However, owner/operators should be cognizant of other Federal or State laws that may be applicable to vessels while in U.S. shipyards or drydocks. It remains the responsibility of the owner/operator, master and crew to ensure that watches are so arranged that the efficiency of all watchkeeping personnel is not impaired by fatigue and that duties are so organized that the first watch at the commencement of a voyage and subsequent relieving watches are sufficiently rested and otherwise fit for duty. Reference MSM Volume II Section A.6.E and Part B Section 5.B of this Volume for additional information on exemptions for laid up, dismantled, or out-of-commission vessels.

In general, vessels in a recognized reduced operating status (ROS) would be considered in a manner similar to the provisions of this paragraph. Vessels entering into ROS should coordinate with the cognizant OCMI. All applicable regulations and requirements would be relevant upon re-entering service. The OCMI should consult any MOU or MOA in force between the USCG and MARAD or MSC (as applicable).

2. The International Labor Organization (ILO) Convention Concerning Minimum Standards In Merchant Vessels (ILO Convention 147).
 Among other matters, this Convention addresses shipboard conditions of employment and shipboard living arrangements. Each country that is a party to the Convention must have laws or regulations laying down, for vessels registered in its territory, inter alia, "safety standards, including standards of competency, hours of work and manning, so as to ensure the safety of life on board vessel." This convention came into force for the United States on June 15, 1988. (See COMDTINST 16711.12 for enforcement guidance concerning this convention.)
3. Human Factors Considerations. (2014)
 Recognizing that the majority of maritime casualties involve human error, the International Maritime Organization is undertaking a review of its instruments, including conventions, codes and resolutions, to consider whether human factor implications have adequately been taken into account in the development of guidelines, standards and recommendations. The United States is playing a major role in this effort to integrate human factors considerations into the IMO decision-making process. The objective is to ensure that human performance limitations, and the role of the human being within a defined system, are given fundamental consideration in the development of new international standards. Given the rapidity with which new information is becoming available on human factors applications in the maritime environment, it is not possible to

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provide detailed guidance in this manual. Information which may be particularly useful to the industry will be circulated by other suitable means.

4. Maritime Labour Convention (MLC), 2006. (2017)
See NVIC 02-13 - Guidance Implementing the Maritime Labour Convention, 2006.

F. General Responsibilities. (2014)

Mariners, owners/operators, and the Coast Guard have separate responsibilities for compliance with, and enforcement of, the work-hour limitation and watchkeeping laws. The subparagraphs below provide general guidance regarding the responsibilities of each party. See Annex for the Master's Field Guide to U.S. Vessel Manning.

1. Mariners. (2014)

Mariners have an individual responsibility to obey the law and are responsible for reporting suspected watchkeeping and work-hour violations via the chain of command, ultimately to the Coast Guard once all other efforts have been exhausted. The master of a vessel is ultimately responsible for the safety of the vessel, passengers and crew, cargo, and the environment. To carry out this responsibility the master must ensure that he/she and the crew are properly rested and complying with the law. The master must communicate with the owner/operator to ensure realistic goals are set. If management exerts pressure to exceed the law, the mariner is encouraged to report this situation to the local Coast Guard OCMI. Section G of this Chapter describes protections afforded to mariners when reporting violations to the OCMI. While the definition of work includes activities which are required for the vessel to be operated safely, a minimal amount of *de minimis* activities would generally not be considered a violation of this rule. Examples of such *de minimis* activities include: those which are necessary to ensure continued safe operation of the vessel (i.e. information exchange at watch change); safety meetings; and drills and training which can only be conducted underway.

2. Ship Management. (2014, 2017)

Owners/operators, like mariners, are responsible for obeying the law. Companies should ensure that employees are informed of the law and provided with information regarding safety concerns of not getting adequate rest. They should be aware of operational demands and work hours required to complete expected tasks on board their vessels. 46 U.S.C. 8104(j) states that "the owner, charterer, or managing operator of a vessel on which a violation of subsection (c), (d), (e), or (h) of this section is liable to the government for a civil penalty..." thus pointing out their responsibility to ensure compliance. They should provide unambiguous guidelines to the master regarding expectations to comply with safety requirements and the law when these are in conflict with operational demands. Under the requirements of the International Safety Management (ISM) Code, as amended by IMO Resolution MSC.353(92), for subject vessels, the Company should ensure that each vessel is manned with qualified, certificated and medically fit seafarers in accordance with national and international requirements. Additionally, the company should ensure that each ship is appropriately manned in order

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to encompass all aspects of maintaining safe operations on board (reference IMO Assembly Resolution A.1047(27)) (see Chapter B1). Shore management has a responsibility to ensure that the Safety Management System (SMS) provides proper guidance on the management of fatigue, its impact on safety and the regulation of hours of work and rest. The SMS should encourage seafarers to alert their onboard managers should they be working, or be at risk of working, in non-conformance. The SMS should also provide clear guidance to Masters on the actions to be taken in the event of significant non-conformance. Such action may include the suspension of operations until personnel are suitably rested. Owners/operators should also be aware of, and react to, planned or expected periods of high intensity operations and ensure that staffing on board is adequate in good time prior to the planned operations.

NOTE: The company should verify compliance with clause A/6.2 of the ISM Code when carrying out the annual internal audit prescribed by clause A/12.1. This includes provisions for safe manning, watchkeeping, hours of work/rest, training & certification, shipboard familiarization, and medically fit mariners. See 46 CFR Subchapter M, Part 138 for applicable Towing Safety Management Systems (TSMS) requirements. (2017)

3. U.S. Coast Guard. (2014)

The Coast Guard is charged with enforcement of the law. The Coast Guard can initiate an investigation based on confidential information provided by mariners during the vessel inspection process, anonymous tips, or through the findings of a Coast Guard marine casualty investigation. The latter may also bring consequences for the mariners involved or the vessel's owner/operators. When the Coast Guard determines that a casualty occurred because of a violation of law, an appropriate action, a suspension and revocation proceeding, and/or a civil penalty may be recommended. However, as described in Section G of this Chapter, protections exist for the mariner reporting deficiencies or illegal operations. OCMI's should ensure that all responsible parties within their area of responsibility are aware of the requirements of the law and particularly the importance that hours of rest, safe manning, and watchkeeping play in ensuring safe operations. See Section B1.K.3 for additional guidance on inspection and enforcement protocols, as well as Sections B6.A.4 and 5 for automated systems. It should be noted that the Coast Guard, by 46 CFR 5.71, is prohibited from exercising its authority for the purposes of favoring any party to a maritime labor controversy. However, if a situation is encountered that affects the safety of a vessel or persons on board, the Coast Guard will initiate an investigation and pursue appropriate action when a violation of statute or regulation is discovered. A particular situation that has generated confusion and concern involves the requirement found in 46 U.S.C.8104(a), which states that an officer taking charge of the deck watch on a vessel leaving port must have at least 6 hours of off-duty time in the 12 hours immediately before leaving port. While an owner/operator cannot be held accountable for the time a mariner has off, they are responsible for the time that an individual is on the dock or on the vessel while in port, and can be expected to verify that the individual has had an opportunity for rest regardless of where he/she has been prior to performing the assigned duties. The owner/operator cannot expect a mariner to participate in extensive preparations for getting underway and also be rested enough to

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take the navigation watch without providing an opportunity for the minimum off-duty time required by 46 U.S.C. 8104(a). Similarly, the mariner is responsible for arriving at the vessel properly rested.

G. Protections. (2014)

The Coast Guard has historically depended on individuals involved with the maritime industry to report violations or unsafe vessel conditions when they occur. In the absence of mariner reporting, the Coast Guard is limited to discovering these types of violations through casualty investigations, or by chance during a scheduled inspection. To prevent retaliation for reporting violations to the Coast Guard, Congress enacted specific protections for mariners that make reports of violations to the Coast Guard. The following cites represent the obligation and protections afforded to mariners for reporting violation of the law or regulations to the Coast Guard.

1. 46 U.S.C. 2114. (2014, 2017)

Provides protection to seamen against any form of discrimination, including discharge, for reporting a violation of any law or regulation issued under the authority of Title 46.

Reference 29 CFR Part 1986 for the Seaman's Protection Act (SPA) procedures and interpretations administered by OSHA (see 81 FR 63396).

2. 46 U.S.C. 3315(a). (2014)

Requires credentialed officers servicing on inspected vessels to assist the coast Guard in the inspection of their vessels as well as point out defects and imperfections known to them. This includes any violations of work or watch standing limitations.

3. 46 U.S.C. 3315(b). (2014)

Prohibits any official of the Coast Guard from disclosing the identity of any individual that provides information on vessel defects, imperfections, and overall safety of an inspected vessel which he or she is serving. This includes information on watchkeeping and work hours.

4. Freedom Of Information Act (FOIA). (2014)

The identity of any mariner who reports an unsafe condition on any vessel, inspected or uninspected, is also protected in accordance with the FOIA exemptions and Department of Transportation (DOT) regulations (49 CFR Part 7).

H. Crew Endurance Management. (2014, 2017)

The Crew Endurance Management System (CEMS) provides a system of proven practices for managing endurance risk factors that affect operational safety and crewmember efficiency in the maritime industry. The process of implementing CEMS is intended to be flexible enough to enable a vessel or company to easily incorporate these practices into their current onboard operations. Fundamentally, the system is a continuous-improvement process, which allows an organization to focus efforts towards those factors that are most feasibly mitigated and that

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present the greatest possible reduction of risk. NVIC 02-08 provides guidelines and standard criteria for use by vessel owners, operators, third-party auditors, Coast Guard OCMI's, marine casualty investigators, and others to aid in the assessment of the veracity and effectiveness of a company's or vessel's CEMS program.

CEMS is not a substitute for applicable legal requirements, nor is it itself currently a regulation. It is not intended to replace guidelines currently in the Oil Pollution Act of 1990 (OPA 90) or Standards of Training, Certification and Watchkeeping for Seafarers (STCW) regarding hours of work and rest. The fundamental purpose of the CEMS is to provide managers, captains, department heads, and officers with tools to manage normal operational risk factors that can degrade crew performance and compromise shipboard safety. Accordingly, it should be used in conjunction with the guidelines provided in OPA 90 and STCW.

See also IMO MSC/Circ.1014, Guidance on Fatigue Mitigation and Management.

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B6

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PART B: VESSEL MANNING**CHAPTER 6: MANNING REQUIREMENTS FOR AUTOMATED VESSELS****A. Manning Requirements. (2014)**

Part B, Chapters 1-7 (legacy Chapters 20-26), has been structured to interlink various elements affecting the safe manning and watchkeeping on U.S. vessels and should be referenced comprehensively. Refer to paragraph B1.A for a summary of all Chapters. This Chapter discusses the acceptance of automated systems to replace specific personnel or to reduce overall crew requirements. Title 46 CFR Part 62 and this Chapter (B6) are not necessarily applicable to uninspected vessels. However, they may be used as an alternative in cases where safe manning documentation is desired. Alternatively, for uninspected towing vessels to receive safe manning documentation endorsed for Periodically Unattended Machinery Space (PUMS), operators may present the OCMI with a Certificate of Class appropriately endorsed for unattended machinery status or meet NVIC 1-78 (see Chapter B3, Section B.2.d.(2)(e)3).

1. General. (2014)

Coast Guard acceptance of automated systems to replace specific personnel or to reduce overall crew requirements is predicated upon the capabilities of the system, its demonstrated and continuing reliability, and a planned maintenance program that ensures continued safe operation. Accordingly, 46 CFR Part 62 applies where automated systems are provided to replace specific personnel in the direct control and observation of the engineering plant and spaces or to reduce overall crew requirements. Often, Part 62 is incorrectly presumed to apply only to machinery or electrical installations that reduce vessel manning requirements; it applies to all automatically or remotely monitored or controlled systems or equipment (MSM Volume IV, Chapter 3.F). The automated systems and arrangements must provide that under all sailing conditions, including maneuvering, a level of safety at least equal to that of the same vessel with the entire plant under fully attended direct manual supervision. The Officer in Charge, Marine Inspection (OCMI) should review all manning proposals objectively. Reductions in manning scales shall only be granted when they do not detract from the safe navigation or operation of the vessel and are consistent with statutory or regulatory requirements. The following general features shall be addressed in reduced manning proposals:

a. Fire Equipment.

Installed fire protection equipment shall be adequate for the reduced complement to deal effectively with a fire emergency.

b. Station Bill.

The station bill shall provide for the effective use of personnel during emergency situations.

c. Lifesaving Equipment.

The design and installation of lifesaving equipment shall be adequate for effective operation by the complement.

d. Vital Systems.

Redundancy of vital systems or machinery shall be required (as in duplicate fuel pumps, secondary vessel's service generator(s) with independent prime movers, etc.).

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- e. Operational Limit.
Scenarios of the vessel's contemplated operation (unlimited or limited service, possible support by shoreside personnel) shall be provided.
- f. Accommodations.
Quarters shall be sufficient to accommodate the designated complement and any additional personnel needed during initial operation or during periods when additional manning is required, such as a result of an automation failure. These accommodations need not be in the form of additional staterooms, but their size and furnishings shall be adequate to meet the needs of the additional personnel.

Manning proposals for new construction or existing vessels that are altered to incorporate automated features should be requested from the owner/operator early in the work. Experience has shown an occasional lack of awareness or understanding of the legal requirements concerning the Coast Guard's assignment of manning scales. In some cases, delay in obtaining such information may result in completion of the vessel to designed standards that will not physically accommodate the required crew.

2. Deck Department.

Reductions in the deck department normally involve elimination of the ordinary seamen, resulting in a deck crew of 6 able seamen (ABs). In addition, requests are received to man vessel's with 4 ABs and 2 ordinary seamen. This manning will normally be considered only if the 2 ordinary seamen meet the criteria set forth in Navigation and Vessel Inspection Circular (NVIC) 3-83. The vessel's Certificate of Inspection (COI) will require 6 ABs, but will be endorsed to allow substitution of up to 2 specially trained ordinary seamen for 2 ABs. The decision to allow substitution of specially trained ordinary seaman for ABs rests with the OCMI. On vessels subject to STCW, members of the navigation watch must meet the qualification as "rating forming part of a navigational watch," and must hold the appropriate STCW certificate. The basic features permitting a lesser requirement for deck personnel are as follows:

- a. Messing.
Coffee service, drinking water, and sanitary facilities in the immediate bridge area are necessary for the functioning of the bridge watch without the relief service traditionally provided by an ordinary seaman.
- b. Call System(s) From The Bridge.
These systems, running to each mate and AB's quarters, general spaces, such as the messroom and recreation areas, and line-handling stations, enable the summoning of crewmembers for the oncoming watch and in emergencies, and allow better coordination in the mooring/unmooring of the vessel.
- c. Constant Tension (Self-Adjusting) Mooring Winches.
These devices enable the reduced deck force to moor/unmoor the vessel safely, without unreasonable physical effort.
- d. Automated Hatch Cover Securing Equipment.
These devices enable the reduced deck force to open and secure the vessel's hatches without unreasonable physical effort (this is particularly important aboard dry bulk and container cargo vessels).

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NOTE: These features are not all-inclusive. Consideration will be given to alternate proposals that accomplish the same goals more practically, when applied to a particular vessel.

3. Engine Department. (2014, 2017)

Modern vessels frequently have automated engineering systems. As defined in 46 CFR 62.10, “automated” means the use of automatic or remote control, instrumentation, or alarms. In certain cases, automated engineering systems may be provided to replace specific personnel in the control and observation of the engineering plant and spaces, or reduce overall crew requirements. See 46 CFR Subchapter L, Part 130 Subpart D for specific provisions pertaining to the automation of unattended machinery spaces on offshore supply vessels of 100 GRT but less than 6,000 GT ITC (500 GRT is not GT ITC assigned). A review of automated vessel experiences show varying degrees of reliability in engineering automation. Accordingly, the U.S. Coast Guard’s acceptance of automated engineering systems to replace specific personnel or to reduce overall crew requirements shall be made only after a system has been operated for a sufficient period of time to demonstrate its reliability.

a. Machinery Space Attendance And Reduced Manning. (2014, 2017)

The Officer in Charge, Marine Inspection (OCMI) shall review and approve all requests for reductions in engine room manning, including requests to operate minimally attended or periodically unattended machinery spaces (MAMS/PUMS). The examination shall include a detailed analysis of the following: (1) the capabilities of the automated system; (2) the combination of the personnel, equipment, and systems necessary to ensure the safety of the vessel, personnel and environment in all sailing conditions; (3) the ability of the crew to perform all evolutions including emergencies and during control or monitoring system failure; (4) a planned maintenance program with regular testing and inspection procedures; and (5) the automated system's demonstrated reliability during its initial trial period and its continued reliability. Critical consideration shall be given to the degree of vital system automation, status of automation approval by the Marine Safety Center (MSC) and status of testing required by 46 CFR 61.40. 46 CFR 62.50 provides additional details on the specific equipment and operational requirements for minimally attended or periodically unattended machinery arrangements. Although classification society automation notations identify the level of automation provided in accordance with class rules, they are not a substitute for the applicable laws, regulations, and policy pertaining to manning and watchkeeping on U.S. vessels. The OCMI shall consider all relevant information in determining a reduction in crew size or authorization for MAMS/PUMS to ensure there is no adverse affect on safety. Any follow-up requests for alteration of the vessel's manning shall be documented and reviewed in a similar manner. See also 53 FR 81-030, 96 [May 18, 1988]), specifically 17834 for OCMI authority and responsibility.

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NOTE: Under the provisions of 46 CFR 50.05-1, Parts 61 and 62 apply to installations contracted for after August 16, 1988 and were not retroactive to existing installations. The guidelines in NVIC 1-69 and 6-84 apply to installations contracted before the Vital System Automation rulemaking. (2017)

b. Automated Engineering Systems. (2014)

There are generally four stages in the approval process of vessels with automated vital systems that may ultimately lead to a request for a reduction in engine room manning. This process occurs between the vessel owner and the cognizant OCMI.

(1) Conceptual Approval.

This is normally given in response to a request to evaluate a proposed vessel and its crew size before construction and, in some instances, may be based on only the broadest description of the vessel and its intended operations. Conceptual approval is always based on the condition that the cognizant OCMI finds the vessel's proposed manning is sufficient for safe operation. The manning levels in the conceptual approval are the design goals for the owner, which are subject to change if the situation warrants. Also, the owner may want to design the automation so that the engine room is suitable for periodically unattended operation, even though no request for reduced manning is made during initial certification.

(2) Technical Review and System Testing. (2014)

In accordance with 46 CFR 61.40, design verification and periodic safety testing of automated vital systems verifies system design, construction and operation according to applicable Part 62 requirements. These include general and specific requirements for the types of vessels described in 46 CFR 62.01-5(a) and the automated engineering systems described in 62.01-5(b). There are additional requirements when automation is intended to replace watchstanders for minimally attended or periodically unattended machinery spaces (see 46 CFR 62.50-20 and 62.50-30, respectively). Design verification testing proves the fail-safe character of the vital systems automation design, and is the most effective method to verify functional independence of automated engineering systems. This testing must be performed according to a design verification test procedure, considered satisfactory for shipboard testing by the MSC, and witnessed by the cognizant OCMI or, in the case of NVIC 2-95 (series), a designated Authorized Classification Society Surveyor before vessel certification or immediately after installation of the automation, as applicable. The approved design verification test (DVT) procedure is the final product of the completed vital systems automation plan approval and satisfactory review of the qualitative failure analysis (QFA) required by 46 CFR 62.20-3(b). A staff engineer from MSC may accompany the OCMI to witness the DVT. This critical testing should not be started until plan review of the QFA and DVT is complete. Periodic safety testing must also be completed to demonstrate required instrumentation and

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alarms and proper operation of the automation. This testing is done in accordance with the periodic safety test procedure that is reviewed by MSC and then forwarded with recommendations to the cognizant OCMI. Again, this testing should not begin until vital systems automation plan review is complete. The MSC or ACS (in the case of ACP) conducting plan review on behalf of the Coast Guard will not stamp such plans "Approved" until after the completion of testing and after the incorporation of any necessary changes identified during testing by the OCMI or ACS. Following successful completion of testing onboard and the incorporation of any necessary changes identified during testing, the document must be resubmitted to MSC for final review and approval.

(3) Initial Certification. (2014, 2017)

When a vessel is initially certificated, the manning level specified in the manning block on the certificate of inspection will generally be that of a fully manned engine room. This level is determined based upon the minimum personnel necessary to stand the engine room watch should complete automation failure occur. However, contingent upon satisfactory technical review and system testing, during the trial period the vessel's master has the authority to decide if watches are necessary, the required complement of the watch, and how watches are actually stood (46 CFR 15.715(b)). In making this determination the master should pay due regard to IMO Resolution A.1047(27), as discussed in paragraph (4)(g) below, when on an international voyage. If for some reason the automation fails, the necessary watchstanders will be onboard and will be assigned a watch schedule in accordance with the requirements of 46 U.S.C. 8104. No reference to watches or periodic unattended engine room operation is to appear on the COI until approved. However, the COI should indicate the MSC automation system approval letter by serial number and date.

(4) Final Approval. (2014)

A vessel owner may ask the cognizant OCMI for a reduction in engine room manning before, at, or sometime after, initial certification. The request for reduction in engine room manning must precede the trial period discussed below and must be consistent with the technical approval of the vessel's automation features. In making a final approval determination the OCMI should: (1) ensure satisfactory completion of the trial period; (2) review the vessel's records; and (3) conduct an onboard observation trip to witness the system's reliability and the ability of the reduced crew to maintain and perform all evolutions safely. Based on a satisfactory approval;

(a) Trial Periods. (2014)

The trial period is a period of operating the plant at the desired watchstanding level (however, a complete engineering crew, as specified in the manning block on the vessel's COI, must be onboard). The trial period validates the proper design and installation of the automation intended to

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replace engine room personnel and allows the vessel personnel to correct minor system problems and fine tune the automated systems. The trial period also demonstrates the reliability of the automation hardware and software. The duration of trial periods for new construction when the vessel is first in a class of vessels is based on underway time and will be 3000 hours. Follow up vessels in the same class may have a reduced trial period depending upon the successful completion of the trial period by the first in class and other circumstances considered by the OCMI. Similarly, consideration for reduced trial periods may also be given to vessels routinely engaged on limited routes with regular access to shore-based maintenance support. On the other hand, evidence of repeated major problems and systems failures may be cause for the OCMI to lengthen trial periods and in some cases reevaluate previously accepted manning levels on vessels of the same class.

(b) Review of Vessel Records.

Whenever possible, the inspector should review the engineering logs, maintenance records and crew overtime logs prior to the observation trip. This will assist in developing a plan for conducting the inspection and to identify possible problem areas with the automation. The OCMI should prompt the vessel owner to submit these logs for review whenever they are not attached with the observation trip request. Identification of problems can be a formidable task. Many of the sophisticated computer logging systems prevalent today tend to log all events. For example, equipment secured by the vessel's crew as a matter of routine generate alarms and logged events. It is difficult to differentiate such normal occurrences from evidence of significant automation problems (e.g., repeated problems that significantly degrade system reliability or automation system/equipment failures). Interviews with the engineering crew should help the inspector make these distinctions. It is also important to determine whether maintenance is preventive or in response to a casualty. Interviews will also assist here. The inspector shall document all significant automation problems, including excessive maintenance, in the inspection report.

(c) Observation Trip. (2014)

Onboard observation trips should be of sufficient length to adequately assess the reliability of the systems. A trip of one to seven days is recommended depending upon the complexity of the plant and the crew reduction requirements. If possible, the inspector assigned should be one who is familiar with the vessel. The vessel should be operated as it would with reduced manning and the inspector should witness the crew's ability to respond to emergencies and system failures. The crew's response should be demonstrated through their performance of a reasonable number of randomly selected tests taken from the vessel's approved periodic safety test procedure. Interviews with the vessel's engineering officers and crew should be

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conducted to discuss plant operation, the frequency and character of assistance-needed alarms, event logging methods, and maintenance policies. The inspector should submit a report that is sufficiently detailed to allow for an adequate review of all evolutions and/or problems witnessed, and should document all significant automation problems and any excessive maintenance needed. The OCMI may, after reviewing the results of the observation period, require an increase in engine room watch personnel until any problems are corrected, a longer trial period may also be required. The OCMI may also consider an increase in engine room watchstanders onboard other vessels of the same class previously approved for reduced manning levels. In these cases, the OCMI that issued COIs to any sister vessels should be consulted.

(d) Issuance of COI. (2014)

The COI may be amended once the request for reduced manning is approved and/or MAMS or PUMS is authorized. The following entry in the "Conditions of Operation" section shall be made identifying the mode of operation for which the propulsion plant is approved (see also the Common COI/SMD Sample Endorsements in the Annex):

APPROVED FOR [PERIODICALLY UNATTENDED] OR [MINIMALLY ATTENDED] MACHINERY SPACE OPERATION. THIS APPROVAL AND THE MINIMUM MANNING LEVEL SPECIFIED ON THIS CERTIFICATE OF INSPECTION ARE CONTINGENT UPON THE PROPER OPERATION OF THE AUTOMATED CONTROL/AUTOMATED MONITORING/AUTOMATED MACHINERY MANAGEMENT SYSTEM(S). ANY MAJOR ALTERATION OR FAILURE MUST BE REPORTED IMMEDIATELY TO THE NEAREST OCMI.

Based on a request and satisfactory final approval (Section A.3.b.(4) of this Chapter), the OCMI may consider a reduction in engineering personnel. For example, a typical full complement of engineering personnel [1 C/E, 3 A/Es, and 3 engineering ratings], for a three watch system on a deep-draft cargo or tank vessel, may be reduced based on PUMS by up to one A/E and the three ratings. Similarly, the full complement of engineering personnel may be reduced based on MAMS by up to the three ratings. These levels are based upon the minimum personnel necessary to stand the engine room watch, per 46 U.S.C. 8104(d), should a complete automation failure occur and live continuous watches be necessary. For appropriately automated vessels routinely engaged on limited routes, the OCMI may consider further reductions in the engineering complement based on regular access to shore-based maintenance support. However, the established manning level must not be less than the minimums stipulated by law or regulation. Prior to any reductions in engineering personnel, the OCMI must be satisfied with the

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arrangements to ensure adequate watchkeeping, hours of rest, and provisions for onboard maintenance. All provisions for reductions in the engineering complement based on automation should be adequately specified in the manning proposal.

NOTE: An OSV of at least 6,000 GT ITC (500 GRT if GT ITC is not assigned) as defined in 46 CFR 125.160, for which the Coast Guard has accepted the use of automated systems to replace specific personnel pursuant to 46 CFR 62.50, must carry at least one credentialed assistant engineer, in addition to the Chief Engineer (46 CFR 15.825(c)). The OCMI may continue to require more than one assistant engineer under existing 46 CFR 15.825(d) (79 FR 48903 [August 18, 2014]). When making this determination, amongst other factors, the OCMI should consider length of voyage and availability of shore-based maintenance support. (2017)

Any major alteration or failures (i.e. casualties) of the automated vital systems must be reported immediately to the nearest OCMI. A major alteration of an automated vital system where a qualitative failure analysis (QFA) is required to be submitted (46 CFR 62.20-3(b)), onboard design verification tests (DVT) in accordance with 46 CFR 61.40-3 are required to be performed immediately after the installation of the automated equipment. Machinery or equipment failures, including those affecting the associated class notation, may result in the OCMI requiring a manned machinery plant operation. In some cases, an increase in manning may be warranted to support live continuous watches. See Section A.5 of this Chapter for discussion on Increased Manning Levels.

(e) Sample Reduced Scales (Seagoing and Great Lakes). (2017)

The following engine department manning levels have been developed as a general guideline for OCMI's. They are not all inclusive or absolute. The OCMI determines the minimum number of credentialed engineers required for the safe operation of inspected vessels (46 CFR 15.825(d)). The base manning level assumes that at least two individuals (one officer and one rating) are appropriate for each watch on a vessel with full manning. Refer to Chapter B2 for the full manning scales and tables depending on vessel particulars, route and service. Typically, for a vessel that meets the requirements for "minimally attended" (MAMS), one engineering officer is appropriate for each watch.

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Operating Mode		Chief Engineer ^[6]	Assistant Engineer ^[6]		QMED (Oilers) ^[5]
3-Watch System	Full Manning	1	If, 2 ^[2, 3] per B2; ↓	If, 3 ^[2, 3] per B2; ↓	3 ^[4]
3-Watch System	Reduced w/MAMS	1	Then, 2 ^[2, 3] ↓	Then, 3 ^[2, 3] ↓	-
3-Watch System	Reduced w/PUMS	1	2 ^[1, 3]		-
2-Watch System	Full Manning	1	If, 1 ^[2, 3] per B2; ↓	If, 2 ^[2, 3] per B2; ↓	2 ^[4]
2-Watch System	Reduced w/MAMS	1	Then, 1 ^[2, 3] ↓	Then, 2 ^[2, 3] ↓	-
2-Watch System	Reduced w/PUMS	1	1 ^[1, 3]		-

[1] The OCMI may consider additional reductions or substitutions for vessels routinely engaged on limited routes based on the availability of shore-based maintenance support. The established manning level must not be less than the minimums stipulated by law or regulation.

[2] Refer to Chapter B2 for full manning scales and tables depending on vessel route and service.

[3] See B3.F for Engineer computations and COI formatting.

[4] See B4.E for Engine Department Ratings.

[5] See B4.F for Maintenance-Persons and Maintenance Departments

[6] See C2.F for Trade Restricted Endorsements.

(f) Reflagged Vessels. (2014)

Reflags will be processed in accordance with this Chapter, except allowance for a reduced trial period can be considered if prior records (in English or with certified English translation) can be provided showing a history of safe operation, and that no major system changes are contemplated during reflagging. In no case will an initial manning level less than that required by the former Flag State be considered.

(g) Vessels Subject to Certain SOLAS Requirements. (2014, 2017)

The OCMI's determination of acceptable machinery space attendance stems from the systems, controls, and capabilities in the Administration's (U.S.) interpretation of SOLAS II-1/E, 46 CFR Part 62, which includes the provisions for regular inspections and routine tests, required by II-1/46.2. These provisions have been incorporated into the periodic inspection and testing regulations found in 46 CFR 61.40 and Part 62. These provisions apply where automated systems are provided to replace specific personnel in the control and observation of the engineering plant and spaces, or reduce

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overall crew requirements (see Section A.1 of this Chapter). The arrangements must make sure that under all sailing conditions, including maneuvering, the safety of the vessel is equal to that of the same vessel with the entire plant under fully attended direct supervision. The approval to operate minimally attended or periodically unattended machinery spaces is subject to the requirements of 46 CFR Part 62, as well as SOLAS for internationally certificated vessels. Authorization shall be so stated on the COI as required by SOLAS II-1/E and recommended by Annex 4 of IMO Resolution A.1047(27), as amended, as discussed in paragraph 3.b.(4)(d) above. The applicability of SOLAS may be determined by GT ITC and could include self-propelled, dual-tonnage, cargo ships under 500 GRT but 500 GT ITC or more on international voyages, depending on keel laying date. The tonnage limits for determining 46 CFR Part 62 applicability were intended to align with SOLAS (see 53 FR 17826 [May 18, 1988]). See 46 CFR Subchapter L, Part 130 Subpart D for specific provisions pertaining to the automation of unattended machinery spaces on offshore supply vessels of 100 GRT or more.

(h) Alternate Compliance Program (ACP) / Maritime Security Program (MSP). (2014, 2017)

The preceding paragraphs identify the general policies and processes for evaluating reduced manning based on automation. Both the ACP and MSP may include additional specific provisions for plan review, testing, approval, trials and manning which are applicable only to those programs and which take precedence over this guidance. For additional information, refer to the latest Commandant guidance pertaining to vessels enrolled in the ACP or MSP. In addition, for vessels enrolled in the ACP, refer to the applicable ACP Supplement for specific requirements.

4. Annual Inspections. (2014)

Marine inspection personnel shall ascertain the performance of installed systems of those vessels that have reduced manning levels during annual inspections. In addition to the review of the vessel's logs, maintenance records and overtime sheets, credentialed officers and ratings should be interviewed. When vessels are required to carry engine maintenance personnel, any periods in which they are placed in a watch status must be noted. See Section B1.K.3 for additional guidance on inspection and enforcement protocols.

5. Increased Manning Levels.

Vessel manning levels that have been reduced due to the installation of automated systems or controls will be restored to conventional levels if the automated system develops a pattern of unreliable performance; isolated instances of "downtime" will not be basis for increased manning. The manning level will be adjusted only in the department affected by the malfunctioning system, and an appropriate amendment will be made to the COI. The increased manning level will remain in effect until corrective action has been taken and the system has been tested to the OCMI's satisfaction.

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The OCMI should take appropriate action to validate any complaints or reports detailing specific instances of repeated equipment failures, excessive overtime, or concerns regarding unsatisfactory performance of crews during emergency and operational evolutions onboard vessels having reduced manning. If the reports are confirmed, a reevaluation of the manning may be justified. The COI required manning must reflect the minimum safe manning level to comply with statutes and regulations. The OCMI should increase the required manning whenever a review of the work records indicates excessive workloads, or when statutory work hour limits are being exceeded, or in situations when the limits are met by the virtue of the vessel owner assigning a sufficient number of "other persons in the crew" to augment the required crew. Manning increases deemed necessary by the OCMI due to automation system failures or inability to safely operate and maintain the vessel for any reason should be reported to Commandant (CG-CVC). Automated machinery control and management system failures, design or component related, which may affect a class of vessels should also be reported to Commandant (CG-ENG).

See Section B1.K.3 for additional guidance on inspection and enforcement protocols, as well as Section B5.F.3 for additional discussion on U.S. Coast Guard responsibilities.

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A. General. (2014)

Part B, Chapters 1-7 (legacy Chapters 20-26), has been structured to interlink various elements affecting the safe manning and watchkeeping on U.S. vessels and should be referenced comprehensively. Refer to paragraph B1.A for a summary of all Chapters. This Chapter discusses the statutes and regulations that apply to the uninspected vessel industry. Although there are very few statutory requirements that allow the Coast Guard to regulate the manning of uninspected vessels, this Chapter will discuss those statutes and regulations that do apply to the uninspected vessel industry. The discussions and manning recommendations in this Chapter are not meant to be all-inclusive and should be used as a general guide only. (See Chapters B2, B3, B4 and B5 for discussions concerning manning and watchstanding qualifications necessary to meet U.S. and international requirements when applicable to certain vessels discussed in this Chapter.)

B. Towing Vessels (Including Integrated & Articulated Tug-Barges (ITBs / ATBs)).
 (2014, 2017)

Towing vessels are subject to various manning requirements depending largely on route, tonnage, service, and inspection status. See Chapter B3. Section G for the Towing Endorsement Table and additional information on which towing endorsements or combinations thereof, are required for various operations. See Chapter B2. Section W for the Subchapter M manning scales.

1. Definitions.

a. Oceans (Domestic Trade) Voyages. (2014)

An Oceans (domestic trade) voyage can be interpreted to include a voyage from any U.S. port to any other U.S. port. 46 U.S.C. 114 states that the term "United States", when used in a geographic sense, means the States of the United States, the District of Columbia, Guam, Puerto Rico, the Virgin Islands, American Samoa, the Northern Mariana Islands, and any other territory or possession of the United States. However, a Panama Canal transit constitutes an international voyage (see Historical and Statutory Notes, 46 U.S.C.A. 114 [West 2007]).

b. Near Coastal Voyages. (2014)

46 CFR 10.107 states, in part, that "near coastal" means ocean waters not more than 200 miles offshore from the U.S. and its possessions. See paragraph D of this Chapter regarding uninspected passenger vessels operating in U.S. near coastal waters, and Chapter B3 paragraph B.2.d.(2) for additional discussion pertaining to U.S. vessels that regularly operate in the near coastal waters of another country.

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2. Uninspected Towing Vessel Worksite Exclusion. (2014, 2017)

Workboat means a vessel that pushes, pulls, or hauls alongside within a worksite.

Worksite means an area specified by the cognizant OCMI within which workboats are operated over short distances for moving equipment in support of dredging, construction, maintenance, or repair work. A worksite may include shipyards, owner's yards, or lay-down areas used by marine construction projects. This definition does not include the movement of barges carrying oil or hazardous material in bulk.

The statute addressing officers on towing vessels, 46 U.S.C. 8904, requires a towing vessel that is at least 26 feet (7.9 meters) in length to be operated by a licensed individual. The U.S. Senate Committee on Commerce Report of June 27, 1972, however, described various situations in which the statute was not intended to apply. The following statement was included in the report: "The licensing requirement will apply only to those vessels which are documented to perform commercial service as towing vessels and will not apply to those vessels which are documented solely for other services or are not required to be documented. The vessels covered are those which perform towing services as a business and the bill does not cover vessels towing in an emergency or on an intermittent basis, not directly connected with the service for which the vessel may have been documented. Excluded from coverage would be, for instance, workboats which are used to move dredging equipment for short distances at the dredging site" (S. Rep. No. 926, 92nd Cong., 2nd sess., 2.). The import of the legislative history comment was that workboats, at a worksite, that may be called upon to move a piece of equipment a short distance at a worksite on an emergency or intermittent basis, would not be required to be operated by licensed individuals (credentialed officers). On the other hand, vessels engaged to perform towing services, including marine construction equipment, however intermittently, would be required to be operated by licensed individuals (credentialed officers). It is important to note that workboats, which tow barges on a fulltime basis, even though always at the worksite, are not operating on an emergency or intermittent basis and are not entitled to a worksite exclusion. While engaged exclusively within an OCMI specified worksite as a workboat, a towing vessel inspected under Subchapter M may be operated in accordance with this Section (see ANNEX-22 for sample COI endorsement).

Towing vessels not specifically engaged in the commercial towing service, operating solely as workboats in dredging operations may be exempt from the manning requirements of 46 U.S.C. 8904. Each case shall be carefully scrutinized to determine whether the exemption applies. The Coast Guard, therefore, must consider the facts of a particular situation in making a determination as to the applicability of the statute.

3. Navigation Watches. (2014, 2017)

There is no specific number of credentialed officers or crewmembers required on an uninspected towing vessel. Watchstanding requirements do, however, prescribe a minimum complement. 46 U.S.C. 8104(d), (g) and (h) require different watchstanding arrangements for the various types of towing vessels and towing operations. See Chapter B5 paragraph A.5.b for related discussion on two-watch arrangements and additional factors.

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- a. A 3-watch system is required for the credentialed officers, sailors, and oilers on seagoing towing vessels of 200 GRT or more, on a voyage of 600 nautical miles or more.
 - b. A 3-watch system is also required for the sailors and engineering personnel (such as oilers), where necessary for the direct control and observation of the engineering plant, on seagoing towing vessels between 100 and 200 GRT on a voyage of 600 nautical miles or more. In this situation the credentialed officers may be divided into a 2-watch system as allowed by 46 CFR 15.705(d).
 - c. A 2-watch system is permitted for the credentialed officers and crewmembers on seagoing towing vessels of 100 GRT or more when on a voyage less than 600 nautical miles.
 - d. Towing vessels not subject to the Officers' Competency Certificates Convention, 1936, including those not on the high seas (i.e., not operating beyond the boundary line) as well as those seagoing vessels of less than 200 GRT, may be divided into a 2-watch system regardless of the length of the voyage as permitted by 46 CFR 15.705(d).
4. Engineering Workers. (2014)
 Seagoing vessels of 200 GRT or more which employ or engage personnel to perform the duties of a chief engineer or engineer of the watch must employ appropriately credentialed engineers (see 46 U.S.C. 8304).
 5. Work Hour Limits. (2014)
 46 U.S.C. 8104(h) allows credentialed operators working aboard towing vessels subject to the provisions of 46 U.S.C. 8904 (e.g., vessels less than 200 GRT) to work no more than 12 hours in a consecutive 24-hour period. There is no similar maximum work hour limit for the crewmembers and ratings on towing vessels subject to 46 U.S.C. 8904, with some exceptions as follows. Seagoing towing vessels of more than 100 GRT are subject to the provisions of 46 U.S.C. 8104(d) (a credentialed officer or seaman may not be required to work more than 8 hours in one day). However, regardless of the route of the vessel, or work rules agreed to by crewmembers, individually or through collective bargaining, the owner and master (or credentialed operator) are required to provide an adequate and fit watch as per 46 CFR 15.601, 15.705 and 15.1111. Consequently, if the credentialed officers or crewmembers have no relief and are too fatigued to stand an alert watch, a hazardous condition is created and the owner and/or master should not permit the vessel to continue to operate until the situation is remedied.

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C. Self-Propelled Vessels 200 GRT Or More. (2014, 2017)

Documented vessels of 200 GRT or more operating on the high seas, including commercial fishing industry vessels, are subject to the provisions of 46 U.S.C. 8304. Title 46 U.S.C. 8304 considers 'high seas' to mean waters seaward of the Boundary Line. Accordingly, the master, mates and engineers on any vessel subject to 46 U.S.C. 8304 (whether uninspected or recreational) are required to hold a Coast Guard-issued license or MMC officer endorsement to serve in that capacity (see the Commandant's Decision on Appeal, M/V MR. TERRIBLE (2010)). Subject vessels are required to have a master (46 CFR 15.805). While the regulations do not explicitly state a minimum number of mates or engineers for these vessels, individuals serving in those capacities must be credentialed or licensed appropriately.

1. Sample Scales. (2014, 2017)

The following manning scale is considered appropriate for such vessels:

Route	Master	Mate	Able Seamen	Ordinary Seamen	Radio Officers	Deckhands	Certificated Lifeboatmen	Chief Engineer	Assistant Engineer	QMED (Fireman/Watertender)	QMED (Oilers)	Tankermen
General Operations	1	*1	-	-	-	-	-	*1	*1	-	*	-
* Denotes variable												

NOTE: See CGMS: Engineer Officer Endorsements on Uninspected Fishing Vessels (R 101915Z DEC 14) and CG-CVC Policy Letter 11-11 (CH1) for relaxed enforcement measures on Uninspected Commercial Fishing Vessels until October 15, 2015 – unless specified otherwise. See R 301848Z JUL 15 for Guidance on Enforcement of Engineer Officer Endorsements on Uninspected Commercial Fishing Vessels. (2014, 2017)

2. Variables.

a. Watches. (2014, 2017)

Generally, there are no statutory requirements for watch systems or minimum number of credentialed officers on documented recreational vessels and fishing vessels, with the exception of certain fish processing vessels or fish tending vessels engaged in the Aleutian trade (See also Figure B7-1). It is the master's responsibility to ensure an adequate watch for the safety of the vessel. While there may be individuals who can routinely and safely perform work for periods in excess of 12 consecutive hours, the rigors of watchkeeping at sea greatly increase the likelihood of fatigue beyond such a period. Between 12 and 24 hours of operation there is a gray area in which the OCMI must judge the prudence of the master's decision to sail without a second credentialed officer or licensed individual to implement the watch, based on the specific circumstances.

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b. Mates. (2014)

If a vessel is operating at sea for extended periods of time it may be assumed that the master of the vessel must, due to normal sleep and body function requirements, relinquish the watch to another crewmember. When this occurs, the person who is assigned the watch becomes the mate and is the person in charge of navigating or maneuvering the vessel. His or her actual status as "mate" does not diminish even if his/her standing orders are to notify the master upon the slightest change of watch conditions which could impact the safety of the vessel. While there is no direct authority by which the Coast Guard can require a subject vessel to carry both a master and a mate in terms of a "manning requirement," if the master of the vessel is found to be too fatigued to stand watch and there is no credentialed mate to assume the duties of officer in charge of the navigation watch, then the master of the vessel could be charged with negligence for failure to maintain an adequate watch. OCMIs should strongly encourage subject vessels of 200 GRT or more operating in excess of 12 hours to have at least two credentialed officers assigned to prevent fatigue. (See Chapters B3 and B5 for additional discussions.) The controlling statute requires only that persons serving as "officers" shall hold a credential endorsed for their positions.

c. Engineers. (2014)

An individual engaged or employed to perform the duties of chief engineer or as an individual in charge of an engineering watch, must hold an appropriately endorsed MMC authoring service as a chief engineer or an assistant engineer, respectively. For mechanically-propelled vessels this is largely predicated upon the particular capabilities of the engineering system and may vary from vessel to vessel. See 46 CFR 15.701, 15.820, and 15.825.

3. Vessels Fishing On Other Than The High Seas. (2014)

Motor vessels of any size, regardless of their numbering or documentation, engaged exclusively in fishing on other than the high seas, are not currently subject to any federal manning requirements. Title 46 U.S.C. 12131 does require that a documented vessel be placed under the command of a citizen of the United States; however, unless subject to 46 U.S.C. 8304, this person may be unlicensed.

4. GMDSS And Commercial Fishing Vessels. (2014)

Traditionally, commercial fishing vessels have been required to carry the radiotelegraph and radiotelephone equipment, including GMDSS equipment, specified for cargo ships in the Communications Act of 1934 and in the Commission's Rules (see 64 FR 98-296, 26 [February 9, 1999]). However, commercial fishing vessels that are otherwise subject to the SOLAS GMDSS requirements have received a limited, temporary waiver of certain equipment carriage requirements in Sea Areas A1 and A2 (see Waiver of Certain GMDSS Rules Applicable to Fishing Vessels and Small Passenger Vessels, Order, 14 FCC Rcd 528, FCC 98-296 (1998)). The waiver is available only for vessels that remain within the specified communications ranges (A1 and A2), and is not applicable to vessels that travel in Sea Area A3 or beyond. Accordingly, in the absence of an individual exemption, such

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vessels must be fitted with the full complement of required GMDSS equipment and manned with two licensed GMDSS radio operators.

NOTE: See CG-CVC Policy Letter 15-06, series, for VHF-DSC Radio Equipment Installation Requirements for Inspected Passenger and Commercial Fishing Vessels. (2017)

- D. Uninspected Passenger Vessels (<100 GRT) [46 U.S.C. 2101(42)(B)]. (2014, 2017)
 Title 46 U.S.C. 8903, and 46 CFR 15.605 require each self-propelled uninspected passenger vessel to be under the "direction and control" of a credentialed individual as prescribed by regulation. In this regard, if a water-skier, or para-sailor is towed for hire, the vessel is considered to be carrying passengers for hire, and the operator of the vessel must be appropriately endorsed. See MSIB 04-15 for water jet devices (WJD), such as Jetpacks. Credentialed masters, mates, or operators of uninspected passenger vessels (OUPV) may serve as person in charge of navigation. Under 46 CFR 10.107 and 11.467, an endorsement for OUPV near-coastal is limited to domestic near-coastal waters not more than 100 miles offshore from the U.S. and its possessions (See paragraph B.1.b of this Chapter for additional discussion of the definition of "near coastal") [not on an international voyage (46 CFR 15.805(a)(7))], as well as Great Lakes and all inland waters. For uninspected passenger vessels of at least 100 GRT, as defined by 46 U.S.C. 2101(42)(A), see Chapter B5.
1. Work Hour Limitations. (2014)
 46 U.S.C. 8104(b) provides that credentialed individuals on oceangoing vessels of not more than 100 GRT "may not be required" to work more than 12 hours in a 24-hour period while at sea. Credentialed individuals serving as OUPV may, however, voluntarily work more than 12 hours in a 24-hour period. (See Chapters B3 and B5 for additional discussions.)
 2. Adequate Watches. (2014)
 While an OUPV may work more than 12 hours, he or she must maintain an adequate watch. If the OUPV has no relief and is too fatigued to stand an alert watch, then that individual would be negligent for failure to maintain an adequate watch. While there may be individuals who can routinely and safely perform work for periods in excess of 12 consecutive hours, the rigors of watchkeeping at sea greatly increase the likelihood of fatigue beyond such a period. Between 12 and 24 hours of operation, there is a gray area in which the OCMI must judge the prudence of the credentialed operator's decision to sail without a second credentialed operator, based on the specific circumstances. Charter fishing and dive vessels routinely operating more than 24 consecutive hours with only one credentialed operator present a dangerous situation, raising significant issues of negligence on the part of the OUPV and owner for failure to provide an adequate watch.

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3. Enforcement Action. (2014)

OCMIs should strongly encourage uninspected passenger vessels operating in excess of 12 hours to have at least two credentialed operators assigned to prevent fatigue. It has been suggested by some operators that a qualified seaman could be left at the helm while the credentialed operator sleeps close by. This is an untenable position. Title 46 U.S.C. 8903 mandates the vessel be operated by a credentialed individual; the Coast Guard does not have the discretion to allow any rating or crewmember to control the vessel without supervision. When a sole credentialed OUPV is assigned to a vessel and is found to have been unfit to maintain vigilance due to fatigue, or allows a rating or crewmember to control the vessel while the OUPV sleeps, the OCMI should consider charging the credentialed operator with negligence, misconduct, or violation of law, as may be appropriate to the specific circumstances.

NOTE: Section 319 of the Howard Coble Coast Guard and Maritime Transportation Act of 2014 amended the law concerning Uninspected Passenger Vessel operations for vessels in the U.S. Virgin Islands. See Sector San Juan Maritime Safety and Security Bulletin 03-15. (2017)

E. Oceanographic Research Vessels. (2014)

Undocumented, uninspected oceanographic research vessels under 200 GRT are not subject to the provisions of 46 U.S.C. 8304 or 46 CFR 15.701. However, if they are of 100 GRT or more, they are subject to 46 U.S.C. 8702 and 8104.

F. Manning Charts. (2014)

Figure B7-1 lists typical requirements and the references for citizenship, manning, and watch requirements that apply to uninspected, documented, vessels (including certain yachts). It is not meant to be all-inclusive and should be used as a general guide only. In certain cases STCW and SOLAS will apply to uninspected vessels. See Chapters B2, B3, and B4 for additional guidance.

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Figure B7-1: Manning Requirements And References For Documented Uninspected Vessels (Including Certain Yachts) (2014, 2017)

Vessel Types	Percentage Of Crew Required To Be A U.S. Citizen Or Alien Lawfully Admitted For Permanent Residency 46 U.S.C. 8103	Crew Required To Hold Merchant Mariner's Document (MMC/MMD) 46 U.S.C. 8701(A)	Percentage Of Deck Crew Required To Be Able Seaman 46 U.S.C. 7312(A-F) 46 U.S.C. 8702	Licensed Operator Required 46 U.S.C. 8901	Licensed Master 46 U.S.C. 8304 46 U.S.C. 8904	Licensed Mates 46 U.S.C. 8304	Licensed Chief Engineer 46 U.S.C. 8304	Licensed Asst. Engineer 46 U.S.C. 8304	Required Watch Divisions 46 U.S.C. 8104
Fishing Vessels (< 200 GRT)	--- ^[3]	NO	---	---	---	---	---	---	---
Fishing Vessels (200 GRT Or >)	--- ^[3]	NO	---	---	YES ^[4]	1 ^[4]	YES ^[5]	1 ^[5]	---
Tender Vessels (< 200 GRT)	100% ^[3]	NO ^[4]	--- ^[6]	---	---	---	---	---	--- ^[6]
Tender Vessels (200 GRT – 500 GRT)	100% ^[3]	NO ^[4]	--- ^[6]	---	YES ^[4]	1 ^[4]	YES ^[5]	1 ^[5]	--- ^[6]
Processor [1] (< 1,600 GRT)	100% ^[3]	NO	---	---	YES ^[4]	1 ^[4]	YES ^[5]	1 ^[5]	---
Processor [2] (1,600 GRT – 5,000 GRT)	100% ^[3]	YES ^[7]	50%	---	YES ^[4]	1 ^[4]	YES ^[5]	1 ^[5]	2
Salvage Vessel	100%	YES ^[7]	65%	NO	YES ^[4]	1 ^[4]	YES ^[5]	1 ^[5]	---
Towboats Seagoing (600 NM Or >)	100%	YES ^[7]	65%	---	YES	2 ^[4, 11]	YES ^[5]	2 ^[5]	3 ^[11]
Towboats Seagoing (< 600 NM)	100%	YES ^[7]	50%	---	YES	1 ^[4]	YES ^[5]	1 ^[5]	2 ^[9]

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Figure B7-1: Manning Requirements And References For Documented Uninspected Vessels (Including Certain Yachts) (Con't)

Vessel Types	Percentage Of Crew Required To Be A U.S. Citizen Or Alien Lawfully Admitted For Permanent Residency 46 U.S.C. 8103	Crew Required To Hold Merchant Mariner's Document (MMC/MMD) 46 U.S.C. 8701(A)	Percentage Of Deck Crew Required To Be Able Seaman 46 U.S.C. 7312(A-F) 46 U.S.C. 8702	Licensed Operator Required 46 U.S.C. 8901	Licensed Master 46 U.S.C. 8304 46 U.S.C. 8904	Licensed Mates 46 U.S.C. 8304	Licensed Chief Engineer 46 U.S.C. 8304	Licensed Asst. Engineer 46 U.S.C. 8304	Required Watch Divisions 46 U.S.C. 8104
Towboats Great Lakes	100%	YES ^[7]	65%	---	YES ^[10]	---	---	---	2 ^[10]
Towboats Inland & W/R	100%	NO	---	---	YES ^[11]	---	---	---	2 ^[11]
Yachts	---	NO	---	---	YES ^[4]	1 ^[4]	YES ^[5]	1 ^[5]	---
Uninspected Passenger Vessels	100%	NO	---	YES ^[12] <100 GRT [46 U.S.C. 2101(42)(B)]	YES ^[13] ≥100 GRT [46 U.S.C. 2101(42)(A)]	---	---	---	2 ^[12, 13]
Other Vessels	100%	YES ^[7]	65% ^[8]	YES	YES ^[4]	2 ^[4]	YES ^[5]	2 ^[5]	3 ^[8]

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NOTES:

1. Small Fish Processor:
 - (a) no more than 1,600 GRT, entering service before 1/1/88, or
 - (b) 100 GRT or over, entering service after 12/31/87 with no more than 16 people on board primarily employed in the preparation of fish and fish products.
2. Medium Fish Processor:
 - (a) over 1,600 GRT but not more than 5,000 GRT, entering service before 1/1/88, or
 - (b) 100 GRT or over, entering service after 12/31/87 with more than 16 people on board primarily employed in the preparation of fish and fish products.
3. Inside the exclusive economic zone (EEZ): On a fishing, fish processing, or fish tender vessel that is engaged in the fisheries of the EEZ, 75% of the unlicensed seamen must be either U.S. Citizens or aliens lawfully admitted to the U.S. for permanent residence. The remaining 25% may be any other alien allowed to be employed under the Immigration and Nationality Act [8 U.S.C. 1101]. Masters, chief engineers, deck watch officers, engineering watch officers and radio officers must be U.S. citizens. [46 U.S.C. 8103].
4. A person in charge of navigating or maneuvering vessels of 200 GRT or more operating outside of the Boundary Lines must be licensed (credentialed officer) as per 46 U.S.C. 8304. [46 CFR 15.810(c)]

NOTE: See CGMS: Engineer Officer Endorsements on Uninspected Fishing Vessels (R 101915Z DEC 14) and CG-CVC Policy Letter 11-11 (CH1) for relaxed enforcement measures on Uninspected Commercial Fishing Vessels until October 15, 2015 – unless specified otherwise. See R 301848Z JUL 15 for Guidance on Enforcement of Engineer Officer Endorsements on Uninspected Commercial Fishing Vessels. (2014, 2017)

5. A person on a seagoing mechanically propelled vessel performing the duties of chief engineer and anyone in charge of an engineering watch must be properly licensed (credentialed officer). [46 CFR 15.820(c) and 15.825(a)]. Title 46 CFR Part 62 and Chapter (B6) are not necessarily applicable to uninspected vessels. However, they may be used as an alternative in cases where safe manning documentation is desired. Alternatively, for uninspected towing vessels to receive safe manning documentation endorsed for Periodically Unattended Machinery Space (PUMS), operators may present the OCMI with a Certificate of Class appropriately endorsed for unattended machinery status or meet NVIC 1-78 (see Chapter B3, Section B.2.d.(2)(e)3).

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PART B: VESSEL MANNING
CHAPTER 7: MANNING OF UNINSPECTED VESSELS
(INCLUDING CERTAIN YACHTS)

Figure B7-1: Manning Requirements And References For Documented Uninspected Vessels
(Including Certain Yachts) (Con't)

NOTE: See CGMS: Engineer Officer Endorsements on Uninspected Fishing Vessels (R 101915Z DEC 14) and CG-CVC Policy Letter 11-11 (CH1) for relaxed enforcement measures on Uninspected Commercial Fishing Vessels until October 15, 2015 – unless specified otherwise. See R 301848Z JUL 15 for Guidance on Enforcement of Engineer Officer Endorsements on Uninspected Commercial Fishing Vessels. (2014, 2017)

6. Fish tender vessels engaged in the Aleutian trade must comply with 46 U.S.C. 8702(b). As a general matter, section 8702(b) requires 65% of the unlicensed deck crew to be ABs, except that this may be reduced to 50% for fish tender vessel engaged in the Aleutian trade. Section 8104(o)(1) requires fish tender vessels of not more than 500 GRT to divide the licensed (credentialed officers) individuals and crewmembers into a 3-watch system. However, Section 8104(o)(2) allows a 2-watch system for fish tender vessels operating or purchased to be used in the trade before September 8, 1990, and entered into service before June 1, 1992. [46 CFR 15.705(e)]
7. Under 46 U.S.C. 8701, with certain exceptions, a merchant mariner's document/credential (MMD/MMC) is required for personnel to be employed on vessels of 100 GRT or more.
8. Vessels not included under the exemptions of 46 U.S.C. 8702(a) must comply with 8702(b). In general, Section 8702(b) requires 65% of the unlicensed deck crew to be ABs for a 3-watch system and 50% for a 2-watch system. Section 8104 determines the applicable watch system. [46 CFR 15.401, and 15.705]
9. 46 U.S.C. 8104(g) allows licensed (credentialed) officers and members of the crew to be divided into not less than two watches while at sea. [46 CFR 15.705(c)(1) revised by 46 U.S.C. 8104(g), as amended (see 80 FR 65165 [October 26, 2015])]
10. 46 U.S.C. 8104(c) stipulates that, on a towing vessel operating on the Great Lakes, a licensed or unlicensed seamen in the deck or engine department may not be required to work more than 8 hours in one day or permitted to work more than 15 hours in any 24-hour period, or more than 36 hours in any 72-hour period, except in an emergency when life or property are endangered. Although a licensed or unlicensed seamen in the deck or engine department cannot be compelled to work more than 8 hours in one day, they may consent to working more than 8 hours in one day so long as they do not work more than 15 hours in any 24-hour period, or more than 36 hours in any 72-hour period, except in an emergency when life or property are endangered. See Chapter B5, paragraph C. on "Required" Vs "Permitted" Work Hour Limits. In practice this could result in a two or three watch system for operations greater than 8 hours depending on how require vs. permitted work hour limits are implemented onboard. See paragraph B.3.d of this Chapter for related discussion on towing vessels, not on the high seas, employing a two-watch system.

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PART B: VESSEL MANNING
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Figure B7-1: Manning Requirements And References For Documented Uninspected Vessels
(Including Certain Yachts) (Con't)

11. Subject to exceptions, 46 U.S.C. 8104(h) permits a master or mate (pilot) operating a towing vessel that is at least 26 feet in length measured from end to end over the deck (excluding sheer) to work not more than 12 hours in a consecutive 24 hour period except in an emergency. The Coast Guard interprets this, in conjunction with other provisions of the law, to permit masters or mates (pilots) serving as operators of towing vessels that are not subject to the provisions of the Officers' Competency Certificates Convention, 1936, to be divided into two watches regardless of the length of the voyage (46 CFR 15.705(d)). See Chapter B5 paragraph A.5.b and paragraph B.3.d of this Chapter for related discussion on two-watch arrangements and additional factors.
12. 46 U.S.C. 8903 requires the OUPV to be licensed by the Secretary under prescribed regulations. 46 U.S.C. 8104(b) provides that licensed individuals (credentialed officers) on oceangoing vessels of not more than 100 GRT "may not be required" to work more than 12 hours in a 24-hour period while at sea. Therefore an uninspected passenger vessel operating greater than 12 hours should have a two watch system. If the OUPV has no relief and is too fatigued to stand an alert watch, then that individual would be negligent for failure to maintain an adequate watch. [46 CFR 15.601, 15.605, 15.705 and 15.905]
13. On every uninspected passenger vessel of at least 100 GRT, there must be an individual holding an appropriate license or valid MMC with endorsement as master and mate, depending on watches (see 46 U.S.C. 8104). [46 CFR 15.601, 15.605, 15.705, 15.805, and 15.905]

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PART C: SHIPMENT AND SERVICE**FOREWORD**

Part C [legacy Chapters 18-19] details the laws and regulations pertaining to the shipment and discharge of seamen, including guidance on the structure of merchant mariner credentials and the endorsement equivalents permitted for service on certain U.S. vessels. The information in Part C has been restructured to account for revised regulations, updated Coast Guard forms and should be referenced comprehensively with Parts A and B.

Chapter C1 contains policy and guidance for uniform application of the statutes and regulations that relate to the protection and relief of seamen, including shipment and discharge. Chapter C2 provides supplementary guidance and discussion on the structure of mariner credentials including limitations (i.e. route, tonnage, grade, propulsion power, propulsion mode, and vessel type) and the endorsement equivalents permitted for service on certain U.S. vessels.

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PART C: SHIPMENT AND SERVICE

CHAPTER 1: SHIPMENT AND DISCHARGE OF SEAMEN

C1

PART C: SHIPMENT AND SERVICE

**CHAPTER 1: SHIPMENT AND
DISCHARGE OF SEAMEN**

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CHAPTER 1: SHIPMENT AND DISCHARGE OF SEAMEN

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PART C: SHIPMENT AND SERVICE**CHAPTER 1: SHIPMENT AND DISCHARGE OF SEAMEN****A. Laws. (2014)**

The laws contained in Title 46 U.S.C., Subtitle II, Part G provide for the protection and relief of seamen, including shipment and discharge.

NOTE: Where appropriate, the term 'seaman' or 'seamen' has been replaced with 'merchant mariner' to align terminology with 46 CFR Subchapter B, Part 14 (Shipment and Discharge of Merchant Mariners) and other Coast Guard regulations. In other cases the terms 'seaman' or 'seamen' have been retained for consistency when referencing a statute in Title 46 U.S.C., Subtitle II (Vessels and Seamen). (2014)

B. Background. (2014)

In 1979, the Department of Transportation Appropriation Bill prohibited the use of funds for shipping commissioners, and thereafter, masters of U.S. merchant vessels assumed the duties for the shipment and discharge of seamen. NVIC 8-79 was originally published to give masters guidelines for these new duties. However, the recodification of Title 46, United States Code and a multitude of procedural changes made NVIC 8-79 outdated. In keeping with the Coast Guard's responsibility to enforce laws pertaining to seamen Protection and Relief, new guidelines were published in NVIC 1-86 for the use by masters aboard U.S. flag vessels required by law to sign on and discharge merchant mariners. NVIC 1-86 continues to provide a useful framework for completing shipping articles, certificates of discharge, and official logbooks.

C. Compliance With Statutory Requirements. (2014)

The shipment and discharge of seamen is controlled by law. Compliance with these laws and the regulations promulgated thereunder is mandatory in the case of seamen who are employed on all United States flag vessels on certain foreign or intercoastal voyages, including vessels serving primarily overseas without returning to any American or foreign port or place (see NVIC 1-86). The rules and regulations contained in 46 CFR Part 14 deal with the shipment and discharge of merchant mariners aboard certain vessels of the United States; Subpart A-General, Subpart B-Shipment of Merchant Mariners, and Subpart C-Discharge of Merchant Mariners. For specific information regarding Oceanographic Research Vessels, reference 46 CFR Part 14, Subpart D. For additional information on official logbooks, including statutory requirements, see paragraph G below.

NOTE: See NVIC 02-13 for guidance on implementing the Maritime Labour Convention, 2006. (2017)

D. Coast Guard Address. (2014)

Each form or report required to be submitted to the National Maritime Center should be forwarded to the addresses listed in 46 CFR 14.103.

PART C: SHIPMENT AND SERVICE**CHAPTER 1: SHIPMENT AND DISCHARGE OF SEAMEN****E. Shipment Of Merchant Mariners.****1. Production Of Credentials By Merchant Mariners Signing Shipping Articles. (2014)**

On engagement for a voyage upon which shipping articles are required, each merchant mariner must present to the master or individual in charge of the vessel every document, certificate, credential, or license required by law for the service the mariner would perform (46 CFR 14.205).

2. Mutilated Credentials. (2014)

A mutilated U.S. Merchant Mariner Credential should not be accepted for employment of the seaman. A credential should not be accepted when it has been materially changed in physical appearance or composition including - indistinguishable personal and credential data (including photograph), evidence of tampering or alteration, and damage beyond recognition.

3. Fraudulent Use Of Credentials. (2014)

The fraudulent use of Merchant Mariner Credentials breaks down the system which the credentials were intended to serve (e.g., a proper identification of the holder and his/her qualifications). If the fraudulent use of a Merchant Mariner Credential is found, the master or individual in charge of the vessel should not allow the bearer to sign on the shipping articles. The master or individual in charge of the vessel should contact the nearest Officer in Charge, Marine Inspection (OCMI) and report the incident.

4. Contractual Relationship Between Master And Crew. (2014)

"Shipping Articles" is the statutory name given to the agreement signed by the members of the crew and the master with respect to a particular voyage or term of employment. Since the laws have certain specific requirements that must be met, the wording of the articles and especially the voyage description must be clear and concise. Compliance with these laws and the regulations promulgated there under are mandatory in the case of merchant mariners who are employed on United States flag vessels on foreign, intercoastal, or coastwise voyages as follows:

- a. 46 CFR 14.201: Voyages upon which shipping articles are required; and,
- b. 46 CFR 14.203: Voyages upon which shipping articles are not required.

If otherwise required by 46 CFR 14.201(b) - a vessel's status as "inspected" or "uninspected" does not necessarily preclude it from these requirements, unless specifically excluded under 46 CFR 14.203.

A voyage is defined by the parties involved and stated in specific terms on the shipping articles. A voyage may be from port to port, port to place, place to place, etc.

PART C: SHIPMENT AND SERVICE**CHAPTER 1: SHIPMENT AND DISCHARGE OF SEAMEN**5. Form Of Shipping Articles. (2014)

The content and form of shipping articles must conform to the provisions of 46 CFR 14.207. The Office of Management and Budget approved the updated version of the Shipping Articles, CG-705A (OMB Number: 1625-0006), used to execute shipping articles. The obsolete paper format of these forms has been in use since World War II and was last revised in the early 1980s. The data collected on the updated forms is nearly identical to the previous version; however, the size of the forms has significantly changed to the standard paper size (8.5 x 11 inches) to accommodate modern technology. The Coast Guard will not stock the updated forms in paper format. In accordance with 46 CFR 14.207(b), these forms are available electronically in a .PDF fill-able format at the National Maritime Center's website. Any company that electronically prepares the articles may develop its own software or buy it off the shelf; but, in either of these cases, it must secure approval to use the software for these purposes from the National Maritime Center (46 CFR 14.207(c)).

6. Number And Disposition Of Shipping Articles And Particulars Of Engagement. (2014)
See 46 CFR 14.209.7. Changes To Shipping Articles. (2014)

In all cases where there are additions to the shipping articles, such additions must be carefully scrutinized to see that they comply with the law and must be read and explained to the seamen before they sign the articles. Under no circumstances should any changes be made to the shipping articles after signature by the seamen.

8. Signing On Crew Replacements. (2014, 2017)

If, after the complete crew has been signed on, shipment of replacement seamen becomes necessary for any reason, only seamen who are properly qualified for the positions they are to assume may be employed. The master assumes the responsibility that the replacement seamen are properly qualified. When engaged in foreign voyages, if a desertion or casualty results in the replacement, 46 U.S.C. 10309(a) requires the master to report the transaction immediately to the United States consular officer upon arrival at the first foreign port at which the vessel arrives. Since United States consular officers are not located at every foreign port, the statutory report should be made to a United States consular officer nearest to the first port or place in the foreign country at which the vessel arrives. The report may be made by facsimile or similar correspondence (e.g. e-mail) whereupon an entry should be made in the vessel's official logbook indicating that this report has been made. A copy of the report may then be attached to the shipping articles. The U.S. Department of State has detailed special instructions to consular officers in the Department of State Foreign Affairs Manual (FAM) Volume 7, Section 7 FAM 730-734, which can be found online at <https://fam.state.gov/>.

9. Employment Of Alien Cadets.

When, as part of the training of the Merchant Marine Cadet Corps of the United States Merchant Marine Academy, alien cadets are assigned to vessels for which a construction or operating differential subsidy has been granted, they shall be excluded from any

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computation of aliens in the crews. The alien cadets assigned must present documentary evidence of their relationship with the academy to the master at the time of signing on the shipping articles. An appropriate notation that such alien cadets are not included in computing the percentage of citizens in the crew should be made by the master in the block provided for entering citizenship information.

10. Posting Of Copy Of Shipping Articles. (2014)

See 46 CFR 14.211.

11. Posting The "Provisions" Text. (2014)

In accordance with 46 U.S.C. 10303, a copy of the following text must be posted in a conspicuous place in the galley and forecabin: "A seaman shall be served at least 3 meals a day that total at least 3,100 calories, including adequate water and adequate protein, vitamins and minerals in accordance with the United States Recommended Daily Allowances."

F. Discharge Of Merchant Mariners. (2014)

1. Completing Entries In Shipping Articles At End Of Voyage. (2014)

See 46 CFR 14.309 and Enclosure (1) of NVIC 1-86.

2. Certificate Of Discharge to Merchant Mariners, Form CG-718A. (2014)

See 46 CFR 14.307. The prescribed format for a certificate of discharge is the same as the present Certificate of Discharge to Merchant Mariners, Form CG-718A. The Coast Guard will not stock the updated forms in paper format. These forms are available electronically in a .PDF fill-able format at the National Maritime Center's website.

3. Use Of Continuous Discharge Book (CDB). (2014)

See 46 CFR 14.305 for continued usage of existing CDBs. Form CG-719A has been discontinued, but may be maintained by a Merchant Mariner.

4. Discharge Of Seamen In A Foreign Port Or Place. (2014)

See also 46 CFR 14.303. When a seaman is discharged in a foreign port or place, the master must make the required entries on the Shipping Articles, and on the Certificate of Discharge to Merchant Mariners, Form CG-718A. Upon the request of the master or a mariner, the consular officer shall discharge the mariner in accordance with the requirements of 46 U.S.C. 10318.

5. Discharge Of Seamen In A Foreign Port Or Place, Special Cases. (2014, 2017)

The U.S. Department of State has detailed special instructions to consular officers in the Department of State Foreign Affairs Manual (FAM) Volume 7, Section 7 FAM 730-734, which can be found online at <https://fam.state.gov/>.

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- a. When a seaman, incapacitated from service by injury or illness, is on board a vessel and it is impractical for the vessel's master to make a personal appearance before a United States consular officer, the seaman may be sent to the consular officer. The consul will provide care for the seaman and defray the cost of the seaman's maintenance and transportation when the following conditions are met:
 - (1) When the condition of the injured or ill seaman is such that prompt medical attendance is necessary and cannot be furnished shipboard; and
 - (2) The master cannot proceed with the seaman to the consul without risk to the crew, the vessel or the cargo.
- b. When the master cannot appear before the consul in person, the master will provide the consul in writing a full statement of the facts that require the discharge of the seaman, together with a statement of the reasons why the master is unable to appear before the consul. The statement should cover the usual particulars set forth in a discharge and should be accompanied by an account of the wages due with the funds to meet such wages, or (if the cash is not available) with an order for the owner for the amount due.
- c. If the consul considers the statement satisfactory, the seaman may be discharged as if the master were present.
- d. If the consul does not consider the statement satisfactory, and the condition of the seaman permits, the consul will decline to grant the discharge and direct that the seaman be returned to the vessel at its expense.
- e. When the condition of the injured or ill seaman is such that the seaman is incapable of completing the release for discharge at the time of removal from the vessel, the master should complete the master's portion of the Mutual Release and place it with the seaman.
 - (1) If the seaman possesses a Merchant Mariner Credential, the master must complete a Certificate of Discharge, Form CG-718A, and make the proper entries on the ship's articles (46 CFR 14, 303, 14.307, 14.309). Form CG-718A must be retained by the master until the termination of the voyage, at which time it must be delivered to the vessel's owner or agent along with shipping articles. Upon completion and presentation of the Mutual Release to the vessel's owner or agent, the seaman must receive all wages due. Form CG-718A must then be signed by the seaman and the original given to him/her. A copy of Form CG-718A must be forwarded to the National Maritime Center in accordance with 46 CFR 14.311. At this time a notation of the completion of the release should be made on the shipping articles with the Mutual Release attached.
 - (2) If the seaman possesses a Continuous Discharge Book, the master must make the proper entries in the book, on the shipping articles and complete Form CG-718A, which must be retained by the master until the termination of the voyage, at which time it must be delivered to the vessel's owner or agent along with the

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shipping articles (46 CFR 14.307). Upon completion and presentation of a Mutual Release to the vessel's owner or agent, the seaman must receive all wages due. Form CG-718A must then be signed by the seaman and a copy or electronic copy forwarded to the National Maritime Center (NMC-4). At this time a notation of the completion of the release should be made on the shipping articles with the Mutual Release attached. For information on reporting the discharge of merchant mariners see 46 CFR 14.311.

6. Crew Replacements. (2014)

When crew vacancies occur, a vessel may continue to be navigated if the vacancies are filled with replacements of the same or higher grade or rating. When vacancies occur for any reason overseas, and U.S. credentialed personnel are not available, 46 U.S.C. 8103(e) permits a non-citizen possessing equivalent licenses, documents and/or qualifications to be employed as a replacement until the vessel's first return to a port at which in the most expeditious manner a replacement who is a citizen of the United States can be obtained. Neither the master nor the Radio Officer can be replaced with non-citizens. The master bears the responsibility to assure such personnel are qualified and, once aboard are trained for their duties, as well as having the ability to communicate in English. Refer to Part B, Chapter 1.I of this Manual for a detailed discussion of "sailing short" and filling vacancies with foreign crewmembers.

7. Reporting Crew Shortage. (2014)

- a. 46 U.S.C. 8101 permits a vessel to be navigated without all of the required positions being filled if:
 - (1) Such vacancies occurred without the consent, fault or collusion of the master, owner or any other person interested in the vessel;
 - (2) The master is unable to obtain replacements of the same or higher grade or rating to fill the vacant positions; and
 - (3) It is the judgment of the master that the vessel is sufficiently manned to safely continue the voyage.
- b. In all cases where an inspected vessel, having been deprived of the services of crewmembers and is navigated with either fewer crewmembers on board than the complement for the vessel calls for, or with replacements of lower grade or rating, 46 U.S.C. 8101(e) and 46 CFR 15.725, require the master to report the shortage and explain the cause of it, in writing, to the nearest OCMI. The master need not obtain permission to sail short, but must report the shortage within 12 hours of the vessel's arrival at its destination. No particular form is required to be used in making such a report. Refer to Part B, Chapter 1.I of this Manual for a detailed discussion of "sailing short."

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c. Masters filing the report should:

- (1) Include the name and mariner reference number of the crew who left the vessel;
- (2) State the cause of the shortage and the port or place at which it occurred;
- (3) Certify that no replacements of the same grade or rating were obtainable; and
- (4) State that in his/her judgment the vessel was sufficiently manned.

8. Reporting Change Of Masters.

If there has been a change of masters during the voyage, the relieving master must note the change and the effective date on the face of the shipping articles in the blank space to the left of the section headed "Citizenship Requirements." The date of change noted should concur with any entry in the official logbook pertaining to the change of masters.

9. Number And Disposition Of Particulars Of Discharge Page. (2014)

The Particulars of Discharge page for foreign and intercoastal voyages must be legibly and accurately prepared in duplicate and signed by the master and each seaman engaged on a particular voyage. It must be attached to the Shipping Articles and Particulars of Engagement page with copies of the Certificate of Discharge and held by the company. For information on reporting the discharge of merchant mariners see 46 CFR 14.311.

G. Official Logbooks.

1. Laws. (2014)

In accordance with 46 U.S.C. 11301, except a vessel on a voyage from a port in the United States to a port in Canada, a vessel of the United States shall have an official logbook if the vessel is:

- a. On a voyage from a port in the United States to a foreign port; or
- b. Of at least 100 GRT and is on a voyage between a port of the United States on the Atlantic Ocean and on the Pacific Ocean.

The official logbook shall be maintained as specified in statute (46 U.S.C. 11301) and regulations (see paragraph G.2). The official logbook should be submitted to the OCMI at the port where the termination of the voyage takes place. It is not to be forwarded to Coast Guard Headquarters. The official logbook should be reviewed by the OCMI in accordance with MSM Volume V, Part B Chapter 9.B. and NVIC 1-86.

NOTE: Section 607 of the Coast Guard Authorization Act of 2010 amended the existing 46 U.S. Code Chapter 113 by adding a new section titled: 11304 – Additional Logbook and Entry Requirements. However, implementing regulations will be necessary to give these amendments full effect. (2014)

PART C: SHIPMENT AND SERVICE**CHAPTER 1: SHIPMENT AND DISCHARGE OF SEAMEN**2. Regulations. (2014)

- a. Title 46 U.S.C. 11301-11303 and supporting regulations require most merchant vessels to maintain an official logbook. Specifically 46 CFR Subparts 35.07-5 (Tank Vessels), 78.37-3 (Passenger Vessels), 97.35-3 (Cargo and Miscellaneous Vessels), 109.431 (Mobile Offshore Drilling Units), 131.610 (Offshore Supply Vessels), 122.280 & 185.280 (Small Passenger Vessels), and 196.35-3 (Oceanographic Research Vessels) address the requirements for maintaining official logbooks on board certain vessels. These regulations are applicable to U.S. vessels which operate solely overseas, without returning to the U.S.
- b. Most regulations (see preceding paragraph) provide that, the master or person in charge of a vessel that is not required by 46 U.S.C. 11301 to have an official logbook, shall maintain, on board, an unofficial logbook or record in any form desired for the purposes of making entries therein as required by law or regulations in the subchapter applicable to the vessel. Such logs or records are not filed with the OCMI, but must be kept available for review by a marine inspector for a period of 1 year after the date to which the records refer. Separate records of tests and inspections of fire-fighting equipment must be maintained with the vessel's logs for the period of validity of the vessel's certificate of inspection.

3. Background. (2014)

- a. The official logbook is the vehicle through which any statutory and regulatory record keeping requirements are maintained. The official logbook contains information about the voyage, the vessel's crew, drills, and operations conducted during the voyage. Official logbook entries identify all particulars of the voyage, including the name of the ship, official number, port of registry, tonnage, names and merchant mariner credential reference numbers of the master and crew, the nature of the voyage, and class of ship. In addition, it also contains entries for the vessel's drafts, maintenance of watertight integrity of the ship, drills and inspections, crew list and report of character, a summary of laws applicable to logbooks, and miscellaneous entries. In most cases the regulations denote that when a voyage is completed, or after a specified time has elapsed, the master shall file the official logbook containing required entries with the OCMI at or nearest the port where the vessel may be. For vessels which are not engaged in routine voyages (e.g. vessels serving primarily overseas without returning to any American port or place), requests for alternative submittal periods should be arranged with the cognizant OCMI.
- b. The Coast Guard, National Maritime Center, gratuitously furnishes to masters of vessels of the United States the official logbook as Form CG-706B. Form CG-706C has been discontinued. In order to obtain hard copies of the official logbook for use, companies should send a request to the National Maritime Center. An automated request process can be found on the National Maritime Center's website at www.uscg.mil/nmc.

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4. Character Entry By Master Upon Discharge Of Merchant Mariners. (2014)
Upon the discharge of every mariner, the master must enter in the official logbook a report of the conduct, character and qualifications of the person discharged or state that an opinion will not be given.
 5. Logbook Entries. (2014)
All masters and officers making entries in the official logbook are to be reminded by Marine Inspectors that the book may be prima facie evidence in a court of law and that entries must be made in accordance with 46 U.S.C. 11502 or they may not be admissible evidence of events aboard ship.
-

H. Deceased, Deserting, And Destitute Seamen. (2014)

1. Disposition Of Wages And Effects.
 - a. The authority for the disposition of the wages and effects of deceased seamen is contained in 46 U.S.C. Chapter 107. The authority for disposition of the wages and effects of deserting seamen is contained in 46 U.S.C. Chapter 115. There are no regulations written specifically addressing this subject. The instructions in this chapter are intended to establish a uniform procedure for their administration.
 - b. Certified extracts of the official logbook entry of a deceased or deserting seaman's wages and effects should be distributed to the following:
 - (1) Employer, vessel owner and vessel operating company;
 - (2) Applicable U.S. District Court or U.S. Consulate Officer;
 - (3) Commanding Officer, National Maritime Center (NMC-4); and
 - (4) With the personal effects of the deceased. The master or master's representative is responsible for delivery of the seaman's money, property and wages to a consular officer or to the U.S. District Court of the district in which the voyage begins or ends.
 - c. The responsibilities of obtaining certified copies of the logbook and sending them to the proper authorities used to be a duty of the shipping commissioner. The master should inform the local OCMI of the death and the OCMI shall obtain certified copies of the logbook and forward them to the authorities listed in b.(2) and (3) above.

PART C: SHIPMENT AND SERVICE**CHAPTER 1: SHIPMENT AND DISCHARGE OF SEAMEN**2. Deceased Seamen. (2017)

The provisions of 46 U.S.C. Chapter 107 apply to the handling of wages and effects of deceased seamen. These are applicable if the seaman had been employed in foreign or intercoastal trade. They do not apply if the seaman had been employed in coastwise trade, or in trade between the U.S. and Canada, the West Indies, or the Republic of Mexico. When 46 U.S.C. Chapter 107 does not apply, the master should turn the deceased seaman's wages and effects over to the shipping company who in turn should deliver them to the official responsible for handling the seaman's estate. In any case, the OCMI should notify the NMC per C1.H.1.b.(3) above.

3. Deserting Seamen. (2014)

Under 46 U.S.C. 11501, desertion by an "engaged" seaman shall be punished by forfeiture of earned wages, money or property left on board. Disposition of such forfeitures is controlled by 46 U.S.C. 11505. Deserters may be subject to enforcement action such as Suspension and Revocation proceedings, see MSM Volume V, Part C Chapter 4.B.

4. Destitute Seamen. (2014)

46 U.S.C. 10318(e) and 11104(a) make provision for assistance to ill, injured, or destitute U.S. seamen by the Department of State. The U.S. Department of State has detailed special instructions to consular officers in the Department of State Foreign Affairs Manual (FAM) Volume 7, Section 7 FAM 700-715.

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PART C: SHIPMENT AND SERVICE

CHAPTER 2: ENDORSEMENT EQUIVALENTS

C2

PART C: SHIPMENT AND SERVICE

CHAPTER 2: ENDORSEMENT EQUIVALENTS

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CHAPTER 2: ENDORSEMENT EQUIVALENTS

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PART C: SHIPMENT AND SERVICE**CHAPTER 2: ENDORSEMENT EQUIVALENTS****A. Deck Officer Endorsements. (2014)**

Deck officer endorsements may be limited by route, tonnage, and grade level. Credentialed officers may find employment in positions that do not directly correlate with these limitations. The following discussions provide guidance on what is included and not included within the limitations placed on an endorsement.

1. Routes. (2014)

Deck officer endorsements, other than towing endorsements, may be issued for the following routes. The routes specified by 46 CFR 11.464, 11.465 and 11.466 for towing endorsements are slightly different but the same concepts apply. (See also Part B, Chapter 3.G of this Manual.)

- a. Oceans.
- b. Near Coastal.
- c. Great Lakes and Inland.
- d. Inland.
- e. Rivers.

The above routes constitute a hierarchy. An officer endorsed at one level may sail on any waters listed below it. For example, an endorsement for Great Lakes and Inland authorizes the holder to sail any river route.

Western Rivers is a unique route applied only to towing vessels. Towing vessel officers may not operate upon Western Rivers unless specifically endorsed for Western Rivers. Towing vessel officers endorsed for only Western Rivers, may not operate on Rivers, other than the Western Rivers. Neither route is subordinate to the other.

2. Tonnage. (2014)

A tonnage restriction applies to the tonnage level specified on the endorsement and to any other authorized service. For example, an officer endorsed as master - 500 GRT can sail as a mate but the tonnage limitation is still 500 GRT. In some cases the officer will hold endorsements with different tonnage limitations. An officer could be endorsed as mate - 500 GRT and master - 200 GRT. This mariner could be employed as a mate on a 250 GRT vessel but not as a master on the same vessel. Subject to any other restrictions, a national endorsement with only a GRT restriction is suitable for service on vessels (not otherwise subject to the provisions of STCW) where only a GT ITC is assigned. In this capacity, the GRT restriction may not be less than the assigned GT ITC of the vessel. See Part B, Chapter 3.B of this Manual for discussion on the Impact of International Standards, including the International Convention of Standards of Training, Certification And Watchkeeping For Seafarers (STCW) 1978, as amended, and International Convention on Tonnage Measurement of Ships, 1969 (ITC).

PART C: SHIPMENT AND SERVICE**CHAPTER 2: ENDORSEMENT EQUIVALENTS**3. Grade Level. (2014)

An officer endorsement as chief, second, or third mate on ocean or near coastal routes authorizes service as a mate where a specific grade level is not required. In many situations, the conditions of employment are different from those normally associated with the endorsed grade level. For example, a third mate - oceans may be employed as a mate - inland even though the operations of the vessel will probably be very different from those of an oceangoing vessel. The employer must ensure that the officer is familiar with the special requirements of the position and understands the duties and responsibilities of the position. The officer must comply with the regulations (46 CFR 15.405) to become familiar with each vessel's relevant characteristics. See also Part B, Chapter 3.D of this Manual.

4. Uninspected Fishing Industry Vessels. (2014)

An officer endorsement as master or mate of inspected vessels may serve as master or mate, respectively, on uninspected fishing industry vessels within the limitations of the credential.

5. Regulatory Equivalents. (2014)

Title 46 CFR Part 15, Subpart I, provides specific regulatory equivalencies for deck officer endorsements and guidance for uninspected passenger vessels and towing vessels. Information on the equivalencies for the assistance towing endorsement is contained in 46 CFR 11.482.

6. Officer Endorsements For Mobile Offshore Drilling Units (MODU). (2014)

- a. To serve as an Offshore Installation Manager (OIM), a mariner must be specifically endorsed as an OIM. There are five grades of Offshore Installation Manager (OIM) endorsements. An OIM Unrestricted endorsement authorizes service in any position where an OIM is required. The remaining four OIM grades are restricted to service on a specific type of MODU while the MODU is operating as stated on the endorsement. For example, an OIM of Bottom Bearing Units Underway may not serve as the OIM while the unit is on location. See 46 CFR 11.470 and 15.520.
- b. To serve as a Barge Supervisor (BS), a mariner must be specifically endorsed as a BS. To serve as a Ballast Control Operator (BCO), a mariner must be specifically endorsed as a BS or a BCO. See 46 CFR 11.472, 11.474, and 15.520.

7. Officer Endorsements For Offshore Supply Vessels (OSV). (2017)

As part of rulemaking that became effective on March 24, 2014 (78 FR 77795 [December 24, 2013]), national officer endorsements for Master OSV are issued either for less than 1,600 GRT/3,000 GT ITC or for a higher tonnage not to exceed 10,000 GRT/GT ITC. Endorsements for Mate (OSV) will be issued with tonnage authority as "Less Than 10,000 GRT/GT ITC." This higher tonnage authority will be added to existing Mate (OSV) endorsements when the mariner renews their credential. However, previously issued endorsements for Mate of OSVs for lesser tonnage will only be valid for their stated

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PART C: SHIPMENT AND SERVICE**CHAPTER 2: ENDORSEMENT EQUIVALENTS**

tonnage. In addition, mariners holding an endorsement as Master of OSVs of Less Than 1,600 GRT/3,000 GT ITC will be issued an endorsement for Mate OSV with a tonnage authority "Less Than 10,000 GRT/GT ITC." This Mate OSV endorsement will be added when the mariner renews their credential, or upon application from the mariner.

B. Engineer Officer Endorsements. (2014, 2017)

Engineer officer endorsements may be limited by propulsion power [horsepower (hp) or kilowatt (kW)], propulsion mode (see Chapter A12.D), route, grade, or type of vessel. Figure C2-1 shows the engineering equivalencies in a graphic format. This table must be interpreted by giving consideration to all limitations that may appear on an endorsement, e.g., a chief engineer of steam vessels of unlimited propulsion power cannot sail as an assistant engineer of any motor vessel; a motor endorsement is required.

NOTE: See NVIC 02-01 for guidance regarding Qualifications of Engineer Officers Serving on Seagoing Vessels with Gas Turbine Main Propulsion. If there is an area of conflict between Chapter A12.D and the NVIC, the guidance provided in NVIC 02-01 shall take precedence. (2017)

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Figure C2-1: Engineering Equivalents (2014, 2017)

The engineer officer endorsements in the left-hand column qualify for service in a subordinate capacity as indicated by the marked columns without additional, specific, endorsement. In all cases, limitations (horsepower, tonnage, waters, etc.) of the endorsement continue to apply. When serving on a vessel to which STCW applies, the appropriate STCW endorsement must also be held.

	UNLIMITED				LIMITED (lower level)											
	C/E	1 st A/E	2 nd A/E	3 rd A/E	C/E	C/E N/C ^[5]	ASST ENG	C/E UFIV	A/E UFIV	DDE UN-LTD	DDE LTD	C/E MODU	A/E MODU	C/E OSV	A/E OSV	
<i>UNLIMITED</i>																
C/E	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
1 st A/E		X	X	X			X		X				X		X	
2 nd A/E			X	X			X		X				X		X	
3 rd A/E				X			X		X				X		X	
<i>LIMITED</i>																
C/E ^[1]					X	X	X	X	X	X	X			X	X	
C/E NC ^[2, 5]						X	X	X	X	X	X			X	X	
Asst. Eng ^[1]							X		X						X	
C/E UFIV								X	X	X	X					
A/E UFIV									X							
DDE UNLTD ^[3]					X	X	X	X	X	X	X			X	X	
DDE LTD ^[3,4]						X	X	X	X		X			X	X	
C/E OSV														X	X	
A/E OSV															X	

NOTES:

1. Limited to vessels of not more than 1600 GRT on Oceans, NC, GL; any GRT on inland waters.
2. Limited to vessels of not more than 1600 GRT on NC, or GL; any GRT on inland waters.
3. Limited to vessels of not more than 500 GRT.
4. See 46 CFR 15.915(a)(1).
5. The chief engineer (limited near-coastal) endorsement will be phased out and discontinued after March 24, 2019. All engineers endorsed as chief engineer (limited near-coastal) can be upgraded to chief engineer (limited) 1600 GRT without further sea service or testing requirements.

PART C: SHIPMENT AND SERVICE**CHAPTER 2: ENDORSEMENT EQUIVALENTS**

1. Propulsion Power. (2014)
A horsepower (hp) or kilowatt (kW) restriction applies to the propulsion power level specified on the endorsement and to any other service unless otherwise authorized. An officer endorsement for chief engineer -3000 hp (2300 kW) can sail as an assistant engineer, but the horsepower limitation is still 3000 hp (2300 kW). In some cases the officer may hold an endorsement with different horsepower limitations for different grades. For example, a mariner could be endorsed as chief engineer - 3000 hp (2300 kW) and assistant engineer - any hp (power rating). This mariner could be employed as an assistant on a vessel of any hp (power rating) but not as chief.
2. Grade Level. (2014)
An officer endorsement as first, second or third assistant engineer authorizes service as an assistant engineer where the grade level is not specified. See also Part B, Chapter 3.F of this Manual.
3. Designated Duty Engineer (DDE). (2014)
The grade of Designated Duty Engineer (DDE) was created to be the sole engineer on vessels of not more than 500 GRT with a periodically unattended engine room. However, current manning requirements do not require DDEs on any vessel, only chief and assistant engineers. A Designated Duty Engineer (DDE) may serve as a chief or assistant engineer within the limitations in 46 CFR 15.915 and the limitations on the credential. See also Part B, Chapter 3 of this Manual.
4. Regulatory Equivalents. (2014)
Title 46 CFR Part 15, Subpart H, provides specific regulatory equivalencies for engineer endorsements in 46 CFR 15.915. See also Part B, Chapter 3 of this Manual.
5. Uninspected Fishing Industry Vessels. (2014)
An officer endorsement as chief engineer or assistant engineer of inspected vessels may serve as chief engineer or assistant engineer, respectively, on uninspected fishing industry vessels within the limitations on the credential.
6. Officer Endorsements For Mobile Offshore Drilling Units (MODU). (2014)
Upper level engineer officer endorsements authorize service on Mobile Offshore Drilling Units (MODUs) without a specific MODU endorsement. The OCMI issuing the MODU's COI may authorize the substitution of chief or assistant engineer (MODU) for chief or assistant engineer, respectively, on self-propelled or propulsion-assisted surface units, except drillships. The OCMI may also authorize the substitution of assistant engineer (MODU) for assistant engineer on drillships. See 46 CFR 11.540 and 15.520.

PART C: SHIPMENT AND SERVICE**CHAPTER 2: ENDORSEMENT EQUIVALENTS****C. Deck Ratings. (2014)****1. Able Seamen. (2014)**

As provided for in 46 U.S.C. 7306–7311a, there are six classifications authorized for endorsement as able seaman (AB). The AB -Unlimited may sail as an AB on any vessel. An AB - Limited may sail in any AB capacity except AB - Unlimited. An AB - Special may sail as an AB in any capacity except AB - Limited and AB - Unlimited. All other AB ratings are limited to employment as an AB on the specific type of vessel authorized on the document. The AB - Sail is authorized to serve on sail training vessels only. See also Part B, Chapter 4.D of this Manual.

2. Seamen On MODUs. (2014)

Unlike the other AB ratings established pursuant to 46 U.S.C. 7306–7311a, AB – MOU (MODU) is not a rating authorized by statute or regulation. The AB – MOU (MODU) endorsements for ratings were issued to address a perceived deficit of seaman qualified for the unique requirements of serving onboard a MODU. However, it is likely that the Coast Guard will work to phase out this endorsement, providing transitional procedures that will allow those currently holding this rating to continue to serve aboard MODUs (see 78 FR 1625-AA16, 247 [December 24, 2013]). In the interim, there are credentials endorsed as AB – MOU (MODU) and Lifeboatman – MOU (MODU). Mariners with these ratings are authorized to serve on mobile offshore drilling units only.

3. Tankermen. (2014)

See 46 CFR Part 13 and 15.860.

4. Lifeboatmen. (2014)

After 24 March 2014, any MMC endorsed as AB will also be endorsed as lifeboatman or lifeboatman-limited, as appropriate (46 CFR 12.401(d)(2)). Every person assigned duties as a lifeboatman must hold a credential attesting to such proficiency. Persons serving on vessels subject to the STCW Convention must also hold an STCW endorsement in proficiency in survival craft and rescue boats other than fast rescue boats (PSC). Every person assigned duties onboard a vessel that is not required to carry lifeboats and is required to employ a lifeboatman must hold an endorsement as either lifeboatman or lifeboatman-limited. See also Part B, Chapter 4.D of this Manual.

PART C: SHIPMENT AND SERVICE**CHAPTER 2: ENDORSEMENT EQUIVALENTS****D. Engine Ratings. (2014)**

There are five distinct Qualified Member of the Engine Department (QMED) ratings, which can be endorsed separately. The ratings are; Fireman/Watertender, Oiler, Junior Engineer, Electrician/Refrigerating Engineer, and Pumpman/Machinist. They do not authorize service in any other rating. For example, a mariner with an endorsement as "Junior Engineer" may not serve as a pumpman for purposes of meeting the manning requirements. However, the COI of some vessels may authorize one rating to be substituted for another. A mariner may obtain all five QMED ratings and be issued an endorsement authorizing service as a QMED - Any Rating. A mariner with this endorsement may fill any engineering rating (46 CFR 12.501(b)).

NOTE: In accordance with 46 CFR 12.501, the Coast Guard will no longer issue original endorsements for deck engineer, deck/engine mechanic, or engineman, or individual endorsements for refrigerating engineer, machinist, electrician, and pumpman. However, a mariner who holds any of these endorsements may continue to renew them as long as he or she is otherwise qualified. (2014)

E. International Convention On Standards Of Training, Certification And Watchkeeping For Seafarers (STCW) 1978, as amended. (2014)

1. For Credentialed Officers see Part B, Chapter 3.B.2 of this Manual.
2. For Credentialed Ratings see Part B, Chapter 4.B.1 of this Manual.

F. Trade Restricted Endorsements. (2014, 2017)

A trade restriction is valid only for the vessel type specified, within the limitations of the endorsement. For example, a mariner endorsed as chief mate (OSV) can only be employed as chief mate on offshore supply vessels. When a vessel is inspected under more than one Subchapter (i.e., Multi-Service [Certificated]), for example a vessel inspected as both an offshore supply vessel and a miscellaneous cargo vessel, mariners must hold credentials appropriate to the trade the vessel is operating in at the time (see also Chapter B2.V) (46 CFR 15.401).

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ACRONYMS & ABBREVIATIONS

AB:	Able Seaman	ILO:	International Labour Organization
ACP:	Alternate Compliance Program	IMO:	International Maritime Organization
ACV:	Air Cushion Vehicle	ISM Code:	International Safety Management Code
A/E:	Assistant Engineer	ITB:	Integrated Tug-Barge
ARPA:	Automatic Radar Plotting Aid	ITC:	International Convention on Tonnage Measurement of Ships, 1969
ATB:	Articulated Tug-Barge	ITU:	International Telecommunication Union
BCO:	Ballast Control Officer	kW:	Kilowatt
CBP:	U.S. Customs and Border Protection	LOU:	Letter of Undertaking
CDB:	Continuous Discharge Book	LTD:	Limited
C/E:	Chief Engineer	MAMS:	Minimally Attended Machinery Space
CEMS:	Crew Endurance Management System	MARAD:	U.S. Maritime Administration
CFR:	Code of Federal Regulations	MERPAC:	Merchant Marine Personnel Advisory Committee
CG-835:	Vessel/Facility Inspection Requirements	MI Notice:	Marine Inspection Notice
CGAA 2010:	Coast Guard Authorization Act, 2010	MISLE:	Marine Information for Safety and Law Enforcement
CG-CVC:	Office of Commercial Vessel Compliance	MLC:	Maritime Labour Convention, 2006
CG-ENG:	Office of Design and Engineering Standards	MMC:	Merchant Mariner Credential
CG-MMC:	Office of Merchant Mariner Credentialing	MMD:	Merchant Mariner Document
CGMTA 2006:	Coast Guard and Marine Transportation Act, 2006	MML:	Merchant Mariner License
CG-OES:	Office of Operating and Environmental Standards	MMLD:	Merchant Mariner Licensing and Documentation
COI:	Certificate of Inspection	MMS:	Mission Management System
COR:	Certificate of Registry	MOA:	Memorandum of Agreement
DDE:	Designated Duty Engineer	MODU:	Mobile Offshore Drilling Unit
DPS:	Dynamic Positioning System	MOU:	Memorandum of Understanding
DVT:	Design Verification Test	MSC:	Marine Safety Center (USCG)
DWTF:	Distant Water Tuna Fleet	MSC:	Maritime Safety Committee (IMO)
EEZ:	Exclusive Economic Zone	MSC:	Military Sealift Command (U.S. Navy)
EO:	Executive Order	MSM I:	Marine Safety Manual Volume I; Administration and Management, COMDTINST M16000.6 (series)
ETO:	Electro-Technical Officer	MSM II:	Marine Safety Manual Volume II; Materiel Inspection, COMDTINST M16000.7 (series)
ETR:	Electro-Technical Rating	MSM IV:	Marine Safety Manual Volume IV; Technical, COMDTINST M16000.9 (series)
FAM:	Department of State Foreign Affairs Manual	MSM V:	Marine Safety Manual Volume V; Investigations and Enforcement, COMDTINST M16000.10 (series)
FCC:	Federal Communications Commission	MSP:	Maritime Security Program
FCP:	First Class Pilot	MTSA:	Maritime Transportation Security Act, 2002
FOIA:	Freedom of Information Act	N/C:	Near-Coastal
FPV:	Fish Processing Vessel	NC:	Not Credentialed
FR:	Federal Register	NMC:	National Maritime Center
GL:	Great Lakes	NOAA:	National Oceanic and Atmospheric Administration
GMDSS:	Global Maritime Distress and Safety System	NVIC:	Navigation and Vessel Inspection Circular
GRT:	Gross Registered Tonnage	OCCE:	Officer's Competency Certificates Convention, 1936
GT ITC:	Gross Tonnage – Convention	OCMI:	Officer in Charge, Marine Inspection
HP:	Horse Power	OCS:	Outer Continental Shelf
HSC Code:	High Speed Craft Code	OCSLA:	Outer Continental Shelf Lands Act
IACS:	International Association of Classification Societies	OICEW:	Officer in Charge of an Engineering Watch
ICAO:	International Civil Aviation Organization	OICNW:	Officer in Charge of a Navigational Watch

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ACRONYMS & ABBREVIATIONS

OIM:	Offshore Installation Manager	
O.N.:	Official Number	
OPA 90:	Oil Pollution Act, 1990	
OS:	Ordinary Seaman	
OSRB:	Oil Spill Response Barge	
OSRV:	Oil Spill Response Vessel	
OSV:	Offshore Supply Vessel	
OUPV:	Operator Uninspected Passenger Vessel	
PAC:	Persons in Addition to the Crew	
PIC:	Person(s) In Charge	
PL:	Policy Letter	
PSTP:	Periodic Safety Test Procedure	
PUMS:	Periodically Unattended Machinery Space	
PVSA:	Passenger Vessel Safety Act, 1993	
QFA:	Qualitative Failure Analysis	
QMED:	Qualified Member of the Engine Department	
RFPEW:	Rating Forming Part of an Engineering Watch	
RFPNW:	Rating Forming Part of a Navigational Watch	
SD/FH:	Stewards Department-Food Handler	
SMA:	State Maritime Academy(ies)	
SMD:	Safe Manning Document	
SML:	Safe Manning Letter	
SMS:	Safety Management System	
SOLAS:	International Convention for the Safety of Life at Sea, 1974	
SPTT:	South Pacific Tuna Treaty, 1987	
SPV:	Small Passenger Vessel	
STCW:	International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978	
TOAR:	Towing Officer Assessment Record	
TSAC:	Towing Safety Advisory Committee	
TWIC:	Transportation Worker Identification Credential	
UFIV:	Uninspected Fishing Industry Vessel	
UNLTD:	Unlimited	
USACE:	U.S. Army Corps of Engineers	
UR:	Unified Requirement	
U.S.:	United States	
U.S.C.:	United States Code	
USCG:	U.S. Coast Guard	
USCIS:	U.S. Citizenship and Immigration Services	
UTV:	Uninspected Towing Vessel	
WHO:	World Health Organization	

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ANNEX



Model format for record of hours of work or hours of rest of seafarers¹

Name of ship: _____ IMO number (if any): _____ Flag of ship: _____
 Seafarer (full name): _____ Position / rank: _____
 Month and year: _____ Watchkeeper:² yes no

Page 1 of 2

Record of hours of work/rest³

Please mark periods of work or rest, as applicable, with an X, or using a continuous line or arrow.

COMPLETE THE TABLE ON THE REVERSE SIDE

The following national laws, regulations and/or collective agreements governing limitations on working hours or minimum rest periods apply to this ship:

I agree that this record is an accurate reflection of the hours of work or rest of the seafarer concerned.

Name of master or person authorized by master to sign this record _____

Signature of master or authorized person _____ Signature of seafarer _____

A copy of this record is to be given to the seafarer. This form is subject to examination and endorsement under procedures established by _____
(name of competent authority)

¹ The terms used in this model table are to appear in the working language or languages of the ship and in English.

² Check / as appropriate.

³ Delete as appropriate.



MINIMUM SAFE MANNING DOCUMENT

Issued under the provision of regulation V/14 of the
INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974, as amended
under the authority of the Government of THE UNITED STATES OF AMERICA
by THE UNITED STATES COAST GUARD

Vessel Name: *(From Certificate of Documentation)* IMO Number: *(If Not Provided Indicate U.S. O.N.)*
Distinctive numbers or letters: *(Call Sign)* Port of Registry: *(Hailing Port)*
Gross Tonnage: (GRT) (GT ITC) Main Propulsion Power: *(Aggregate)(hp) / (Aggregate)(kW)*
Type of Vessel: *(Primary Service)* Periodically Unattended Machinery Space: *(YES or NO)*
Trading Area: *(e.g. Oceans/Unlimited)* Operating Company:

In accordance with the principles and guidelines set out in Annex 1 and 2 of IMO Resolution A.1047(27), the vessel named in this document is considered to be safely manned if, when it proceeds to sea, it carries not less than the number and grades/capacities of personnel specified in the table below. When on an 'international voyage', this vessel must be manned with the following licensed and unlicensed personnel, included in which there must be two (2) certificated lifeboatmen [Note: Ref. 46 CFR 15.845], three (3) GMDSS Radio Operators [Note: Ref. Para B3.L], and zero (0) certificated tankerman [Note: Ref. 46 CFR 15.860]:

U.S. License/Rating	STCW Grade/Capacity	Certificate (STCW regulation)	Number of Persons
Master [Note: Ref. Para B3.C & G]	Master on vessels of 500 to 3,000 GT ITC or more	II/2 [Note: Ref. Para B3.B.2.a]	1
Licensed Mate [Note: Ref. Para B3.D & G]	Officer in charge of a navigational watch of vessels over 500 GT ITC	II/1 [Note: Ref. Para B3.B.2.a]	2 ^a
Able Seaman [Note: Ref. Para B4.C & D]	Rating forming part of navigational watch	II/4 [Note: Ref. Para B4.B.1.a]	3 ^a
Chief Engineer (Motor/Unlimited hp) [Note: Ref. Para B3.E]	Chief engineering officer, main propulsion machinery over 3,000 kW	III/2 [Note: Ref. Para B3.B.2.b]	1
Licensed Engineer (Motor/Unlimited hp) [Note: Ref. Para B3.F]	Officer in charge of an engineering watch of vessels over 750kW	III/1 [Note: Ref. Para B3.B.2.b]	2 ^a
Qualified Member of the Engine Department [Note: Ref. Para B4.C & E]	Rating forming part of an engineering watch	III/4 [Note: Ref. Para B4.B.1.b]	---

Special requirements and conditions:

*In accordance with U.S. law, when on a voyage of less than 600 miles, manning may be reduced by one (1) Licensed Mate, one (1) GMDSS Radio Operator, one (1) Licensed Engineer, and one (1) Able Seaman. [Note: Ref. Para B5.A.4.b]

Up to one (1) Ordinary Seamen with an STCW 95 endorsement attesting to "Rating forming part of a navigational watch" may be substituted for one (1) Able Seaman. [Note: Ref. Para B4.B.1.a.(3) & B4.D.1]

[Note: Ref. Para B3.B.2.d.(2)(b) for special requirements and conditions pertaining to the Canadian MPR]

In addition, the vessel may carry xxxx (x) passengers, xxxx (x) other persons in crew, xxxx (x) persons in addition to the crew, and no others. Total persons allowed: xxxxx (xx).

Issued at: *(Location of Unit)*
Date of Issue:

XXXXXX XXXXX
U.S. Coast Guard
Officer in Charge, Marine Inspection

U.S. Department of
Homeland Security

United States
Coast Guard



Unit Address Block
Unit Address Block
United States Coast Guard

Unit address block
Unit address block
Staff Symbol: (sp)
Unit phone
Unit fax
Unit e-mail

16711 /*Insert Vsl name*

Vessel Operator Address Block

Attn:

Vessel Operator Address

Vessel Operator Address

Subj: SAFE MANNING LETTER (SML) FOR VESSEL NAME,

IMO Number: (If Not Provided Indicate U.S. O.N.)

Dear Port State Control Official:

We are providing this letter as a statement of fact for the referenced vessel regarding U.S. requirements for operation in oceans unrestricted service on foreign/international voyages. This commercial vessel was built / keel laid date^[1] on _____, is _____ GRT, _____ GT ITC, (Aggregate) hp, and (Aggregate) kW. The vessel has / has not^[1] undergone any major modifications.

The International Convention on Tonnage Measurement of Ships, 1969, came fully into force on 18 July 1994. Under the provisions of this Convention, as supplemented by International Maritime Organization (IMO) Interim Schemes (Resolutions A.494 (XII) and A.541(13)), a vessel meeting certain criteria may retain the gross tonnage assigned under the Flag State's national tonnage system for the purpose of applying requirements of specific international conventions.²

The U.S. Coast Guard acknowledges that the above mentioned vessel is currently of United States registry and qualifies for retaining national gross tonnage under the provisions of the International Convention on Tonnage Measurement of Ships, 1969, as supplemented by IMO Interim Schemes. The national gross tonnage assigned to this vessel under the United States Regulatory Measurement System is _____ GRT.^[2]

Based on its size and current service the vessel is not required to be inspected and certificated by the U.S. Coast Guard under the laws of the United States, nor does / do^[1] SOLAS and MARPOL^[3] require certification, including issuance of a Safe Manning Document.

To assist Port State Authorities and others that may have an interest in the operations of the subject vessel the below information is provided regarding what requirements do apply to the vessel.

The vessel must comply fully with the Flag State requirements for an uninspected vessel of this tonnage and service. Those requirements are contained in Title 46 Code of U.S. Federal

¹ Delete as appropriate.

² Delete if interim tonnage scheme does not apply. See NVIC 11-93 (series)

³ Delete as appropriate for vessels ≥ 400 GT ITC

ANNEX-4

CH-2

Regulations, Subchapter C (Part 24-26). Although no inspection certificate is required to be issued attesting to compliance, the U. S. Coast Guard does have authority to do boarding's of the vessel for the purpose of verification. A properly displayed and valid Uninspected Towing Vessel decal shows this vessel has voluntarily been examined and meets current applicable Flag State requirements.⁴ The vessel may engage in unrestricted international voyages provided that it is properly manned with credentialed crew as noted below:

1 Master (Oceans / Near Coastal^[4]) of not more than _____ GRT, _____ GT ITC.

1 Mate, OICNW (Oceans / Near Coastal^[4]) of not more than _____ GRT, _____ GT ITC.

1 Chief Engineer, of _____ hp, _____ kW.*

1 Assistant Engineer, of _____ hp, _____ kW.*

2 Able-bodied Seaman (without STCW endorsements)

*A Designated Duty Engineer (Unlimited / Limited^[5]) may be substituted for a Chief Engineer and/or an Assistant Engineer on vessels below 500 GRT.

Periodically Unattended Machinery Space^[6]: YES / NO^[4]

STCW requires any rating forming part of any watch in a manned engine room or designated to perform duties in a periodically unmanned engine room powered by main propulsion machinery of 750 kW or more to meet certification requirements. If the vessel employs a crewmember in this capacity that crewmember should have an MMC with appropriate STCW endorsements. Deck ratings are not required to meet STCW if aboard a vessel of less than 500 GT ITC.

The vessel should maintain records indicating the work and rest hours of all credentialed watch standers.

We respectfully request that Port State Officials accept this letter as evidence of the Flag State's requirements for the vessel to operate in unrestricted service. Questions concerning this letter may be directed to address and/or e-mail listed at the top of this letter.

Sincerely,

XXXXXXXXXXXXXXXXXXXX

Insert rank, U. S. Coast Guard
Officer in Charge, Marine Inspection

⁴ Delete as appropriate.

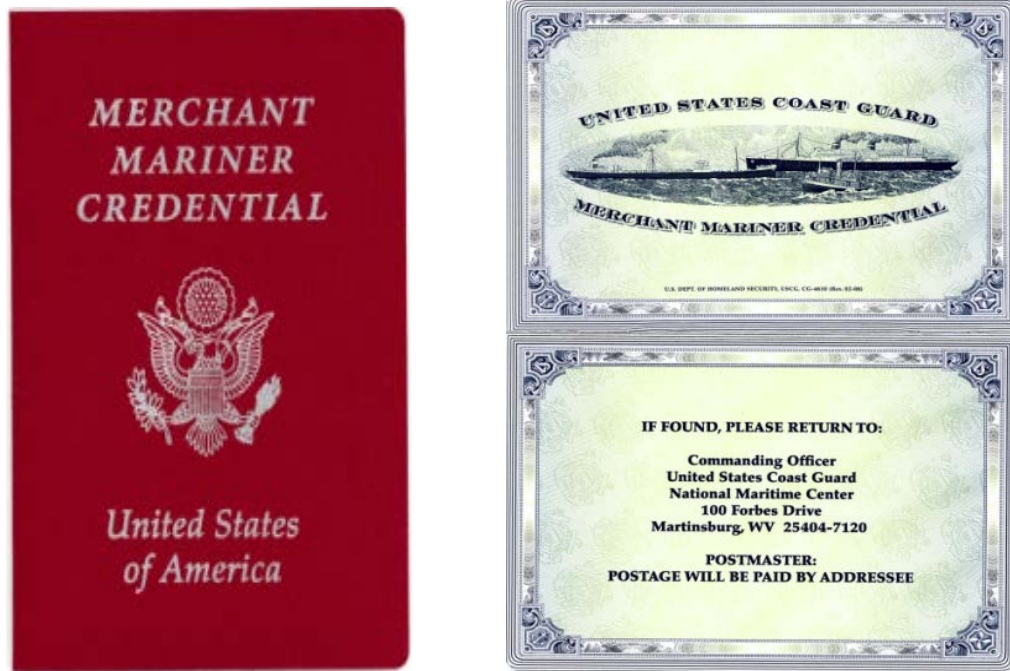
⁵ Delete as appropriate. If limited, specify hp/kW limitation.

⁶ PUMS Endorsement only necessary for voyages to Canada.

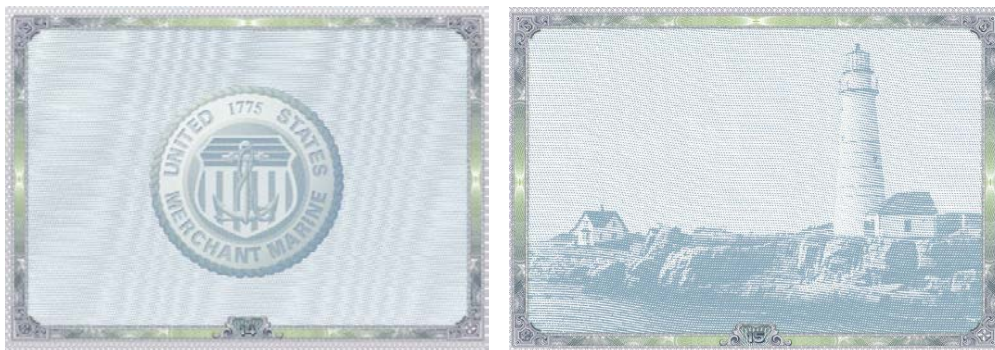
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Sample: Consolidated Merchant Mariner Credential (MMC). (2014, 2017)

The merchant mariner credential or MMC combines the individual merchant mariner's document, license, and certificate of registry enumerated in 46 U.S.C. Subtitle II Part E as well as the STCW endorsement into a single credential that serves as the mariner's qualification document, certificate of identification, and certificate of service. The MMC is a seafarers' identity document for the purpose of the Seafarer's Identity Documents Convention (revised), 2003, of the International Labor Organization. The MMC has the look and feel of a passport, however, it does NOT substitute for a passport. The MMC retains much of the traditional artwork found on the current credentials. The document is resistant to chemical solvents, oxidants, acids and alkali. Updated MMC booklets were issued starting March 22, 2016. The new MMC booklet features an improved layout with graphic images of historic lighthouses, the Eads Bridge, the Merchant marine Emblem, and a first-order Fresnel lens. Additionally, the cover of the MMC has been stiffened for greater durability. All currently active credentials will remain valid until their printed expiration dates. [Due to scanning constraints, the color depicted here is not a true color match.]



New MMC Booklet (March 22, 2016).



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Personal Data. (2014)

Personal information on the data page adheres to the requirements of ICAO 9303, Machine Readable Travel Documents, and includes all data elements required by the Seafarers' Identity Documents Convention (Revised) (ILO-185). The MMC is not valid without signature of the holder. Mariners should sign the document on receipt.



NOTE: MMCs issued after August 3, 2015 were produced using an improved laminate, which enhances print quality and security features. The new laminate contains the Department of Homeland Security, Coast Guard, and the Merchant Marine seals as well as other features (example image not available for inclusion). Laminate is used on the personal data page and all subsequent printed pages ending with the issuing official's signature. There were no changes made in the way endorsement labels are issued and applied to MMCs. MMCs issued prior to August 3, 2015 will remain valid until the printed expiration date. Questions regarding the authenticity of a MMC should be directed to the NMC. (2017)

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Credential Data. (2014)

This is an example of the data pages that will be printed on a credential with both International (STCW) and Domestic (Officer and Rating) Endorsements. Each page contains the reference number of the mariner and the serial number of the booklet.

This page contains the International (STCW) Endorsement.

<p>This credential has been issued under the provisions of the International Convention on Standards of Training Certification on Watchkeeping for Seafarers 1978, as amended.</p> <p>The lawful holder of this Credential as endorsed below, is entitled under Title 46 (Shipping) U.S. Code to serve in the capacity or capacities specified, Subject to any limitations indicated.</p> <p>The Government of the United States of America certifies that</p> <p style="text-align: center;">JOHN THE MERCHANTMARINER, JR.</p> <p>has been duly qualified in accordance with the provisions of regulation(s)</p> <p style="text-align: center;">II/2; II/4; VI/2</p> <p>of the above Convention, as amended, and has been found competent to perform the following functions, at the levels specified, subject to any limitation indicated until 01-OCT-2013.</p>							
Ref Num 2500020	Serial Num 000333						
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">CAPACITY</th> <th style="text-align: left;">LIMITATIONS APPLYING (IF ANY)</th> </tr> </thead> <tbody> <tr> <td>Chief Mate</td> <td>Valid for service on vessels operating in the global maritime distress & safety system (GMDSS).</td> </tr> <tr> <td>Proficient in the use of survival craft</td> <td>Valid for service in fast rescue boats.</td> </tr> </tbody> </table> <p>Issue Date: 01-OCT-2008 Expiration Date: 01-OCT-2013 Issue Port: Martinsburg, WV</p> <p style="text-align: center;">_____ D.C. STALFORD, CAPT, USCG</p>		CAPACITY	LIMITATIONS APPLYING (IF ANY)	Chief Mate	Valid for service on vessels operating in the global maritime distress & safety system (GMDSS).	Proficient in the use of survival craft	Valid for service in fast rescue boats.
CAPACITY	LIMITATIONS APPLYING (IF ANY)						
Chief Mate	Valid for service on vessels operating in the global maritime distress & safety system (GMDSS).						
Proficient in the use of survival craft	Valid for service in fast rescue boats.						
Ref Num 2500020	Serial Num 000333						

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Credential Data (Con't).

This page contains the Domestic (Officer and Rating) Endorsements. Domestic Officer and Rating Endorsements data are printed in terms of Capacities and Limitations much like the current STCW Certificates.

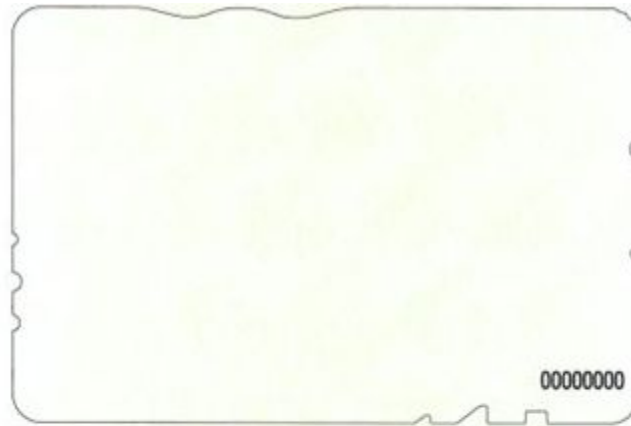
The lawful holder of this Credential,	
JOHN THE MERCHANTMARINER, III	
as endorsed below, is entitled under Title 46 (Shipping) U.S. Code to serve in the capacity or capacities specified (Domestic Only), subject to any limitations indicated.	
CAPACITY	LIMITATIONS APPLYING (IF ANY)
Master	Limited to Inland Waters
First Class Pilot	Limited to Inland Waters of Southeast AK from Dixon entrance to Yakutat Bay, excluding Klawock Inlet, West Coast Prince of Wales, South Coast Prince of Wales, Sumner Strait West, Gastineau Channel, and Glacier Bay; also first class pilot of any gross tons upon the waters of Kachemak Bay/Homer, Seldovia Bay/Seldovia, Seal Rocks to Bligh Island and Port of Valdez; also first class pilot of steam or motor vessels of any gross tons upon Washington main ship channels between Point Roberts and Vita Rocks and the terminal port of Bellingham.
Ref Num 2500020	Serial Num 000333
4	
CAPACITY	LIMITATIONS APPLYING (IF ANY)
Any Unlic Rating in Deck Dept.	Except Able Seaman
Lifeboatman	Valid for use on Fast Rescue Boats
Wiper	
Stewards department (FH)	
Issue Date: 01-OCT-2008	Expiration Date: 01-OCT-2013
Issue Port: Martinsburg, WV	
D.C. STALFORD, CAPT, USCG	
Ref Num 2500020	Serial Num 000333
5	

NOTE: In accordance with 46 U.S.C. 7110, each holder of a license issued under Part E shall display, within 48 hours after employment on a vessel for which that license is required, the license in a conspicuous place on the vessel. Mariners holding a consolidated MMC should display the officer endorsement page of the MMC, which is equivalent to the previous officer license. As a security measure, mariners have been advised not to post their credentials while the vessel is visiting foreign ports. (2014)

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Endorsement Label. (2014, 2017)

When a mariner applies for an endorsement or raise in grade, the NMC will produce a label to be added to the MMC. The label will be mailed to the mariner with instructions for placement in the credential booklet. Once the label has been adhered to the booklet, it cannot be removed without damaging the document. When a mariner is provided a label to be added to the MMC, it will contain both the mariner's Coast Guard reference number, and the serial number of the MMC it is to be inserted into. The numbers for the label must match those in the MMC it was added to.



Merchant Mariner Credential (MMC) Endorsement

Read all of the information below before inserting label(s) in your MMC

- This label is the endorsement to your MMC, however, it is not valid unless properly placed within your MMC.
- Please review the information contained on the endorsement label for accuracy, before placing in credential booklet. If, after reviewing the label, you have questions, concerns or need additional information, DO NOT insert in booklet. Instead, please call: (888)427-5662 or send an e-mail to: iasknmc@uscg.mil
- The instructions below must be followed carefully to ensure that this label becomes a permanent part of your MMC. Labels cannot be repositioned and you should not make any attempt to remove it once it is affixed to your MMC.
- If more than one label has been enclosed you must place them in the order indicated by the sequence number next to label beginning with 1.



Step 1: Open the MMC booklet to the first blank page. It may be the front or back of a page.



Step 2: Place the opened credential on a hard surface with the page numbers at the bottom (toward you).



Step 3: Carefully remove label from the carrier sheet.



Step 4: Center the label within the page border, with the label inventory number at the lower right corner. Do not obstruct the page number.



Step 5: Press firmly onto the credential page.

- If you make a mistake while inserting this endorsement call (888) 427-5662 or send an e-mail to: iasknmc@uscg.mil to request further instruction.

00000000

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Sample: Medical Certificate. (2014)

The medical certificate is a document issued by the Coast Guard under 46 CFR part 10, subpart C that serves as proof that the seafarer meets the medical and physical standards for merchant mariners. Because of differing legal requirements, each medical certificate will carry three expiration dates. One will be the expiration date for STCW (see 46 CFR 10.301(b)(1)), a second expiration date will be for First Class Pilotage under 46 CFR 15.812 (see 46 CFR 10.301(b)(2)), and the third will be the expiration date for all other purposes (see 46 CFR 10.301(b)(3)). A valid medical certificate must be carried when serving under the authority of a MMC [46 CFR 15.401(d); 15.403(a); 15.403(b)(1)]. The medical certificate will note any operational limitations on the mariner's authority to serve. The mariner is responsible for complying with any operational limitations or restrictions on the medical certificate.

United States Coast Guard
 Medical Certificate
 Seafarer Name: **MERCHANTMARINER, VERSION7534 NATIONAL**
 Gender: **Male** Nationality: **US** DOB: **01-OCT-1991**
 STCW Exp Date: **01-OCT-2014** National Exp Date: **01-OCT-2014** Pilot Exp Date: **01-OCT-2014**



 JEFFREY P. NOVOTNY, CAPT, USCG
 OFFICER IN CHARGE, MARINE INSPECTION

SEAFARER SIGNATURE

CN 0000051 Ref Num: 3506824
 v DO NOT DETACH v

^ DO NOT DETACH ^

* Mariner is free from any medical condition likely to be aggravated by service at sea or to render the seafarer unfit for such service or to endanger the health of other persons on board.

* Date of Examination:	01-OCT-2013
* Last Color Vision Test Date:	07-AUG-2013
* Hearing IAW STCW A-I/9:	Y
* Visual Acuity IAW STCW A-I/9:	Y
* Color Vision IAW STCW A-I/9:	Y
* Fit for Look-out duties:	Y
* Unaided Hearing Satisfactory:	Y
* Identification Checked at Examination:	Y

* **No Limitations/Restrictions: N**
 1) Corrective lenses required

CN 0000051 CG-4610A (Rev. 05/12) Ref Num: 3506824

* If “No Limitations/Restrictions” is “N” then a Limitation/Restriction should be listed. If “Y” then there are no Limitations/Restrictions.

ANNEX**NOTE: Medical Certificate, Transitional Provisions. (2014)**

Issuance of medical certificates to mariners holding only national endorsements will be phased-in over a five-year period. Beginning January 24, 2014, mariners with only national endorsements will be issued a medical certificate during their first credential transaction that requires a medical review. By January 24, 2019, all mariners holding only national endorsements should have a valid medical certificate. In most cases, mariners who have a credential with only national endorsements issued before January 24, 2014 won't have a separate medical certificate until their next credential transaction that requires a medical review. This can be verified by checking the issuance date on the MMC Personal Data page.

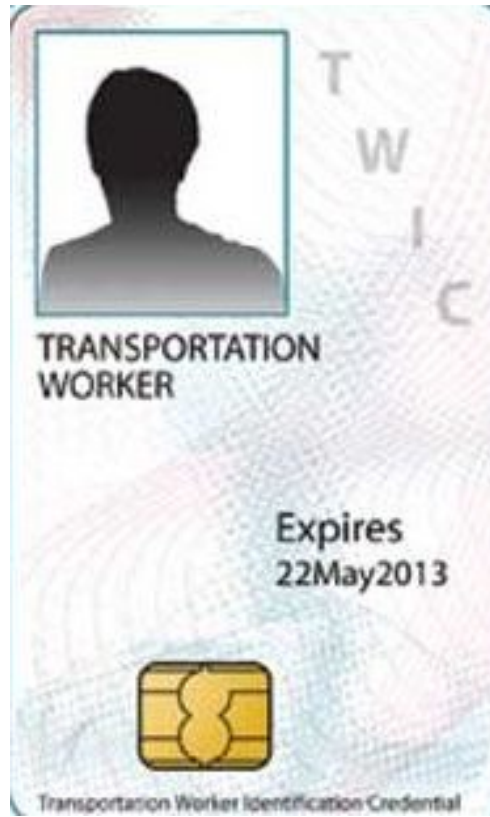
First Class Pilots and those acting as pilot under the provisions of 15.812 are required to have an annual physical examination which meets the requirements of 46 CFR Part 10, Subpart C; however, they are only issued medical certificates every 2 years. The issuance of medical certificates to First Class Pilots will be phased-in over an 18 month period. Beginning January 24, 2014, First Class Pilots will be issued a medical certificate during their first credential transaction which requires a medical review OR at their first required submission of physical examination in accordance with 46 CFR 11.709(b) whichever is earlier. After July 24, 2015, all Pilots should have a valid medical certificate, however those national mariners holding but not acting under the authority of the pilot endorsement need only meet the 5 year phase-in allowance of the previous paragraph.

Full implementation of the medical certificate requirements is based on the following schedule;

STCW:	Beginning on or about 1 January 2014, mariners with current STCW endorsements will be issued a medical certificate. This process should be completed by 1 January 2015. The issuance of STCW endorsements subsequent to that date will include a medical certificate. Once issued, a valid medical certificate must be carried when serving under the authority of a MMC. All persons employed or engaged onboard vessels to which STCW applies must hold a valid medical certificate by 1 January 2017.
National endorsement only:	Once issued, a valid medical certificate must be carried when serving under the authority of a MMC. All mariners serving under their national endorsement should have a medical certificate no later than January 24, 2019.
First Class Pilot (service):	Once issued, a valid medical certificate must be carried when serving under the authority of their pilotage endorsement. All mariners serving under the authority of a pilotage endorsement should have a medical certificate by July 24, 2015.

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Sample: Transportation Worker Identification Credential (TWIC). (2014)



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ANNEX

Sample: Document of Continuity. (2014)

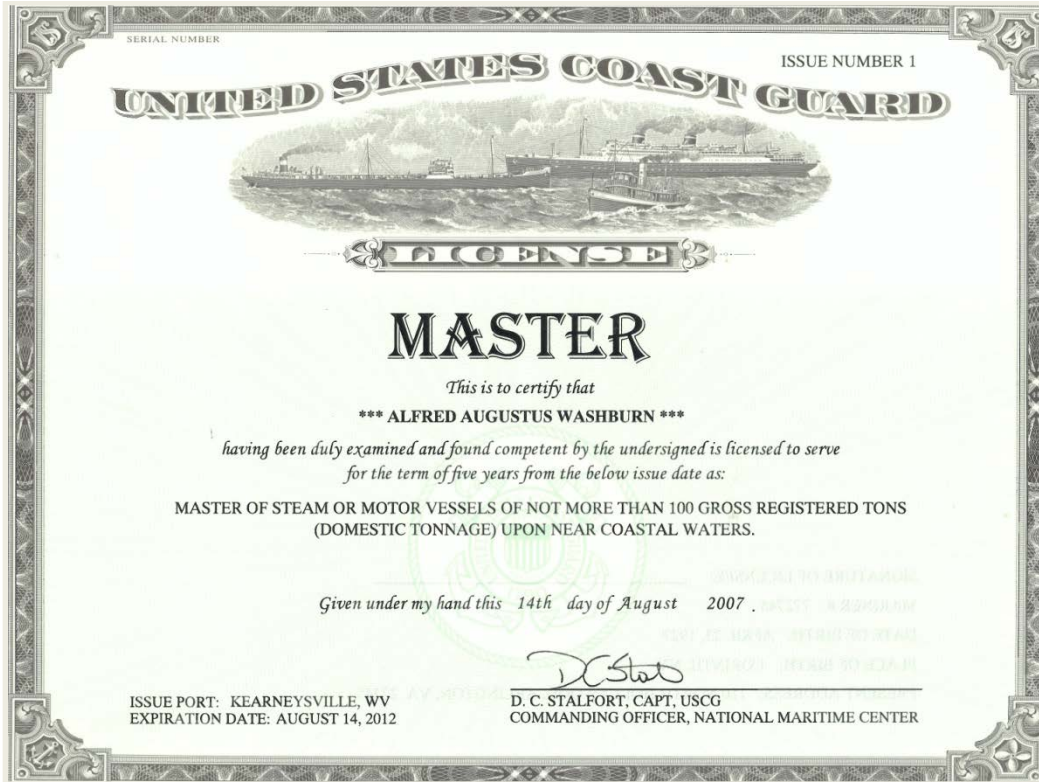
When a mariner makes application to place any/all endorsements into continuity status they will be issued a Document of Continuity. Like the MMC, this document will consolidate all Capacities and Limitations being placed into continuity status. The Document of Continuity will have no expiration date. A document of continuity does not entitle an individual to serve as a merchant mariner.

UNITED STATES COAST GUARD	
	
MERCHANT MARINER DOCUMENT OF CONTINUITY	
<i>This is to certify that</i>	
*** MARINER FNAME, MNAME, LNAME, SUFFIX ***	
<i>has been authorized to hold the following capacities and limitations for Continuity purposes only. Service under the authority of this document is prohibited.</i>	
CAPACITY	LIMITATIONS APPLYING (IF ANY)
Master	Limited to Inland Waters
First Class Pilot	Limited to Inland Waters of Southeast AK from Dixon entrance to Yakutat Bay, excluding Klawock Inlet, West Coast Prince of Wales, South Coast Prince of Wales, Sumner Strait West, Gastineau Channel, and Glacier Bay.
Lifeboatman	Valid for use on Fast Rescue Boats
ISSUE DATE: 21-OCT-2008	<i>(auto-penned signature)</i>
ISSUE PORT: MARTINSBURG, WV	D.C. STALFORD, CAPT, USCG COMMANDING OFFICER, NATIONAL MARITIME CENTER

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ANNEX

Sample: Legacy merchant mariner licenses (MML), merchant mariner documents (MMD), certificates of registry (COR), and STCW certificates [which ceased to be valid after April 9, 2014]. (2014)

Merchant Mariner License (MML). (2014)



Sample: Merchant Mariner Document (MMD) [Front and Back]. (2014)



CG-2838 (Rev 09/02) Issued by U.S. Coast Guard

Hair	Eyes	WT	HT	Mariner #
BRO	BRO	190	5-07	2500020

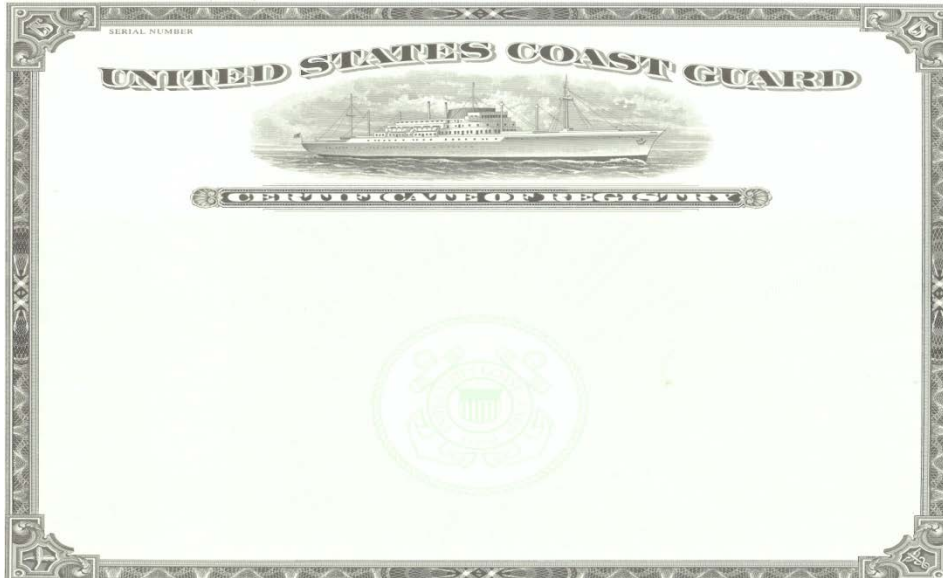
WIPER, SD(FH), CORRECTIVE LENSES REQUIRED, ANY UNLIC DK RATING INCL AB

Issued: 06/06/2008
 Expires: 06/06/2013

Issued by: MARTINSBURG, WV
 D. C. STALFORT, CAPT, USCG
 Commanding Officer, National Maritime Center

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Sample: Certificate of Registry [Format]. (2014)



Sample: STCW Certificate. (2014)

000000 **United States of America**

ENDORSEMENT ATTESTING THE ISSUE OF A CERTIFICATE UNDER THE PROVISIONS OF THE INTERNATIONAL CONVENTION ON STANDARDS OF TRAINING, CERTIFICATION AND WATCHKEEPING FOR SEAFARERS, 1978, AS AMENDED.

The Government of the United States of America certifies that Certificate No. _____ has been issued to Alfred A. Washburn, who has been found duly qualified in accordance with the provisions of regulation(s) A-WAV of the above Convention, to serve in the capacity or capacities listed below, subject to any limitations indicated until 2 June 2008. This endorsement is not valid unless accompanied by a valid U.S. Merchant Mariner's license or document.

FUNCTION	LEVEL	LIMITATIONS APPLYING (IF ANY)

The lawful holder of this endorsement may serve in the following capacity or capacities specified.

CAPACITY	LIMITATIONS APPLYING (IF ANY)
Waiver	Medical Waiver: Required to wear a hearing aid and have spare batteries on board.

Endorsement No.: issued on June 2, 2005 at Nmc.

April 23, 1927 Date of birth of certificate holder <hr/> Signature of certificate holder	NMCAS <hr/> ALFRED AUGUSTUS WASHBURN	Signature of duly authorized official <hr/> C. PARKER Name of duly authorized official
--	---	--

DEPT. OF HOMELAND SECURITY, USCG, CO-5611 (01-05)

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Sample: Merchant Mariner Certificate Suitable for Framing. (2014)

Mariners who hold or have held a valid Merchant Mariner Credential (MMC) can download, save, print and display a merchant mariner certificate suitable for framing. The certificate, which is to be used for display purposes only, is not authorized as a substitute for a valid MMC and will not substitute for the MMC where the requirement to post a credential exists.



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Common COI/SMD Sample Endorsements. (2014, 2017)
(Noninclusive.)

Periodically unattended or minimally attended machinery space. [MSM Vol. III, Part B, Chapter 6] (2014)

APPROVED FOR [PERIODICALLY UNATTENDED*] OR [MINIMALLY ATTENDED*] MACHINERY SPACE OPERATION. THIS APPROVAL AND THE MINIMUM MANNING LEVEL SPECIFIED ON THIS CERTIFICATE OF INSPECTION ARE CONTINGENT UPON THE PROPER OPERATION OF THE AUTOMATED CONTROL/AUTOMATED MONITORING/AUTOMATED MACHINERY MANAGEMENT SYSTEM(S). ANY MAJOR ALTERATION OR FAILURE MUST BE REPORTED IMMEDIATELY TO THE NEAREST OCMI.

*Delete as appropriate

Unattended machinery space, Subchapter L and M only. [500 GT ITC and above, endorsement aligns with SOLAS II-1/46.3 and IMO Resolution A.1047(27) for international voyages] (2014, 2017)

[APPROVED FOR PERIODICALLY UNATTENDED MACHINERY SPACE OPERATION. THIS APPROVAL AND*] THE SPECIFIED MANNING LEVEL IS CONTINGENT UPON THE PROPER OPERATION OF THE ENGINEERING AUTOMATED CONTROL/MONITORING SYSTEMS. ANY MAJOR ALTERATION OR ESSENTIAL COMPONENT FAILURE MUST BE REPORTED IMMEDIATELY TO THE COGNIZANT OCMI.

*Delete as appropriate

Unattended machinery space, Subchapter L and M only. [Less than 500 GT ITC or for domestic voyages] (2014, 2017)

THE SPECIFIED MANNING LEVEL IS CONTINGENT UPON THE PROPER OPERATION OF THE ENGINEERING AUTOMATED CONTROL/MONITORING SYSTEMS. ANY MAJOR ALTERATION OR ESSENTIAL COMPONENT FAILURE MUST BE REPORTED IMMEDIATELY TO THE COGNIZANT OCMI.

Foreign near-coastal voyages. [MSM Vol. III, Part B, Chapter 3] (2014)

VESSEL LIMITED TO A NEAR COASTAL ROUTE WHEN OFFICERS HOLD NEAR COASTAL ENDORSEMENTS AND STCW CERTIFICATES. A NEAR COASTAL ROUTE IS THE LESSER OF 200 NM FROM SHORE OR THE DISTANCE AS DEFINED BY THE LOCAL COUNTRY WHERE THE VESSEL IS OPERATING.

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Canadian Marine Personnel Regulations. [MSM Vol. III, Part B, Chapter 3] (2014)

CHIEF ENGINEER, ASSISTANT ENGINEERS, OR DESIGNATED DUTY ENGINEERS NOT REQUIRED OTHER THAN ON VOYAGES TO CANADA IN ACCORDANCE WITH DIVISION 4 OF THE CANADIAN MARINE PERSONNEL REGULATIONS.

Offshore supply vessels (OSV) and Mobile Offshore Drilling Units (MODU) foreign crew waiver. [MSM Vol. III, Part B, Chapter 1] (2014)

WHEN OPERATING FROM A FOREIGN PORT, NOT ON U.S. WATERS, FOREIGN NATIONALS WITH VALID STCW CERTIFICATES, ISSUED BY A COUNTRY DEEMED BY THE IMO TO BE GIVING FULL AND COMPLETE EFFECT TO THE STCW CONVENTION, AS AMENDED, MAY SERVE AS AN OFFICER WITHOUT ADDITIONAL ENDORSEMENT, PROVIDED THE MASTER ADHERES TO TITLE 46, CODE OF FEDERAL REGULATIONS (CFR) 15.720(D). THE MASTER OF THE VESSEL MUST BE A U.S. CITIZEN, DULY CERTIFICATED BY THE UNITED STATES.

THIS ENDORSEMENT ESTABLISHES CONFORMITY WITH THE SAFE MANNING REQUIREMENTS OF THE UNITED STATES PERTAINING TO 46 CFR 15.720(B) IN FULL CONSIDERATION OF THE GUIDING PRINCIPLES FOR PORT STATE CONTROL (APPENDIX 11, IMO RESOLUTION 1052(27), AS REVISED).

Multi-Service (Certificated) Offshore Supply Vessels. [MSM Vol. III, Part B, Chapter 2] (2014)

VESSEL IS MULTI-CERTIFICATED AS FREIGHT VESSEL, OFFSHORE SUPPLY VESSEL AND INDUSTRIAL VESSEL. VESSEL MUST CONFORM AT ALL TIMES TO THE MOST STRINGENT DESIGN AND EQUIPMENT STANDARDS OF THE APPLICABLE RULES AND REGULATIONS, INCLUDING SOLAS, REGARDLESS OF WHICH SERVICE THE VESSEL IS IN. VARIATIONS FROM STANDARD OPERATING DETAILS AND MANNING ARE DEPICTED BELOW BASED ON SERVICE THAT THE VESSEL IS ACTUALLY ENGAGED IN. CHANGES IN SERVICE SHALL BE LOGGED IN THE VESSEL'S OFFICIAL LOG BOOK.

USCG Marine Safety Manual, Vol. III: Marine Industry Personnel
ANNEX

Permissive crewing. [MSM Vol. II, Section A, Chapter 3] (2014)

Where a vessel owner/operator voluntarily elects to crew a barge not otherwise required to be crewed, the vessel's Route Permitted and Conditions of Operation section of the COI should be endorsed:

****PERMISSIVELY MANNED****

PERMISSIVE MANNING AUTHORIZED PROVIDED RESTRICTIONS ON THE CURRENT LOAD LINE CERTIFICATE ARE MET. THE VESSEL MAY CARRY [##] PERSONS AS MAINTENANCE PERSONS WITH NO DUTIES CONNECTED WITH THE NAVIGATION OF THE VESSEL.

On seagoing barges over 100 GRT, the endorsement should include the statement:

ALL MAINTENANCE PERSONS MUST POSSESS MERCHANT MARINER CERTIFICATES, AND A MINIMUM OF 75 PERCENT OF THOSE PERSONS ABOARD MUST BE U.S. CITIZENS.

This endorsement may be further modified to limit the route on which personnel may be aboard based upon load line, lifesaving equipment, or other relevant factors.

Specially Trained Ordinary Seamen (STCW). [MSM Vol. III, Part B, Chapter 4] (2014)

UP TO TWO ORDINARY SEAMEN WITH A STCW CERTIFICATE ENDORSED FOR REGULATION II/4 'RATING FORMING PART OF A NAVIGATION WATCH' MAY BE SUBSTITUTED FOR TWO ABLE SEAMEN WITHOUT FURTHER ENDORSEMENT AS ABLE SEAFARER-DECK II/5.

Specially Trained Ordinary Seamen (Non-STCW). [MSM Vol. III, Part B, Chapters 2, 4, 6] (2014, 2017)

UP TO TWO ORDINARY SEAMEN MAY BE SUBSTITUTED FOR TWO ABLE SEAMEN. UNLICENSED SEAMEN PERFORMING NAVIGATIONAL WATCH KEEPING DUTIES MUST POSSESS MERCHANT MARINERS CREDENTIALS ENDORSED AS ABLE SEAMAN OR ORDINARY SEAMAN WITH A LETTER OF QUALIFICATION AND SPECIAL TRAINING AS PROVIDED IN NAVIGATION INSPECTION CIRCULAR 3-83.

ANNEX**Deck and Engine Maintenance-Person Endorsements.** [MSM Vol. III, Part B, Chapter 4] (2014)

ENGINE MAINTENANCE-PERSONS MUST EACH HOLD A QMED ENDORSEMENT AS JUNIOR ENGINEER, DECK ENGINE MECHANIC, OILER, OR ENGINEMAN AND AN STCW ENDORSEMENT ATTESTING TO 'RATING FORMING PART OF AN ENGINEERING WATCH'. WHEN CARRYING REFRIGERATED UNITS, ONE OF THE TWO ENGINE MAINTENANCE PERSONS MUST HOLD AN ENDORSEMENT AS A REFRIGERATION ENGINEER OR AS AN ELECTRICIAN.

THREE OF SIX MAINTENANCE-PERSONNEL SHALL HOLD QUALIFIED MEMBER ENGINE DEPARTMENT RATINGS WITH ENDORSEMENTS AS EITHER JUNIOR ENGINEERS OR OILERS. THE OTHER THREE MAINTENANCE-PERSONNEL SHALL HOLD ABLE SEAMEN ENDORSEMENTS.

Maintenance Department Endorsement. [MSM Vol. III, Part B, Chapter 4] (2014, 2017)

THE ABOVE MANNING IS CONTINGENT UPON THE UTILIZATION OF A MAINTENANCE DEPARTMENT AS INDICATED IN THE VESSEL'S OPERATING MANUAL. ANY SUBSTANTIAL CHANGE IN THE OPERATION OF THIS DEPARTMENT MUST, PRIOR TO IMPLEMENTATION, BE REPORTED TO THE OCM I WHO ISSUED THE VESSEL'S CERTIFICATE OF INSPECTION.

AT LEAST THREE OF THE REQUIRED MAINTENANCE-PERSONS MUST HOLD ENDORSEMENTS AS ABLE SEAMEN, EXCEPT THAT UP TO TWO OF THESE MAY BE QUALIFIED AS SPECIALLY TRAINED ORDINARY SEAMEN IN LIEU OF HOLDING ABLE SEAMAN ENDORSEMENTS. THREE MAINTENANCE-PERSONS MUST EACH HOLD A QMED ENDORSEMENT AS JUNIOR ENGINEER, DECK ENGINE MECHANIC, OILER, OR ENGINEMAN.

Small Passenger Vessels and Passenger-Carrying Barges. [MSM Vol. III, Part B, Chapter 2] (2014)

IF THE VESSEL IS AWAY FROM THE DOCK, OR PASSENGERS ARE ON BOARD OR HAVE ACCESS TO THE VESSEL FOR A PERIOD EXCEEDING 12 HOURS IN A 24 HOUR PERIOD AN ALTERNATE CREW SHALL BE PROVIDED.

Oil Spill Response Barges. [MSM Vol. III, Part B, Chapter 2] (2014)

WHEN TRANSFERRING RECOVERED OILY LIQUIDS OR OIL TO OR FROM ANOTHER VESSEL OR FACILITY, A TANKERMAN-PERSON-IN-CHARGE SHALL BE PROVIDED.

USCG Marine Safety Manual, Vol. III: Marine Industry Personnel
ANNEX

Towing Vessel Worksite Exclusion. [MSM Vol. III, Part B, Chapter 7] (2017)

WHILE ENGAGED EXCLUSIVELY WITHIN AN OCMI SPECIFIED WORKSITE AS A WORKBOAT, A TOWING VESSEL INSPECTED UNDER SUBCHAPTER M MAY BE OPERATED IN ACCORDANCE WITH MSM Vol. III, Part B, Chapter 7.B.2.

Conditionally Occupied Barge. [MSM Vol. III, Part B, Chapter 2 & CG-CVC Policy Letter 16-04] (2017)

All ATB Barges

WHILE OPERATING BEYOND THE BOUNDARY LINE, OR ON THE GREAT LAKES, THIS ATB BARGE MAY BE CONDITIONALLY OCCUPIED BY UP TO (SPECIFY A #) PERSONS.

WHENEVER PERSONNEL ARE CONDITIONALLY OCCUPYING THE ATB BARGE, A PROPERLY CREDENTIALLED CREW MEMBER HAVING A LIFEBOATMAN OR LIFEBOATMAN/LIMITED ENDORSEMENT SHOULD BE PRESENT ON THE BARGE.

Additional for ATB Tank Barges

WHENEVER PERSONNEL ARE CONDITIONALLY OCCUPYING THE ATB TANK BARGE TO OPERATE BARGE MACHINERY RELATED TO THE CARGO OR BALLAST WATER, AT LEAST ONE TANKERMAN-PIC, TANKERMAN-PIC (BARGE), OR RESTRICTED TANKERMAN-PIC SHOULD BE PRESENT ON BOARD THE BARGE.

****DO NOT USE. NO LONGER AUTHORIZED FOR USE.****

International Convention On Tonnage Measurement Of Ships, 1969 (ITC). [MSM Vol. III, Part B, Chapter 3] (2014)

ALL LICENSED INDIVIDUALS MUST HOLD LICENSES AUTHORIZING SERVICE ON VESSELS OF A TONNAGE AT LEAST EQUAL TO THE VESSEL'S U.S. REGULATORY TONNAGE AS INDICATED ON THIS CERTIFICATE OF INSPECTION AS PROVIDED FOR IN IMO RESOLUTION A.540(XIII).

****DO NOT USE. NO LONGER AUTHORIZED FOR USE.****

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ANNEX Attachments. (2017)

ATTACHMENT (1): Suggested Template – Minimum Safe Manning Proposal

ATTACHMENT (2): MMS Work Instruction – Assignment of U.S. Vessel Manning

ATTACHMENT (3): Master’s Field Guide – U.S. Vessel Manning

ATTACHMENT (4): Safe Manning Verification Check-sheet



Suggested Template: Minimum Safe Manning Proposal

To Supplement the Application for Inspection of U.S. Vessel [CG-3752/3752A]

(Rev. 06-17)

Vessel Name:

IMO#/O.N./CG#:

This suggested template may be used to prepare and submit a minimum safe manning proposal as outlined in Marine Safety Manual Volume III, Sections B1.C - F. *It is not a required or OMB controlled form.* The manning requirements for a particular vessel are determined by the Officer in Charge, Marine Inspection (OCMI) after consideration of the applicable laws, regulations, and all other factors involved, such as: emergency situations, size and type of vessel, installed equipment, proposed routes of operation including frequency of port calls, cargo carried, type of service in which employed, degree of automation, use of labor saving devices, and the organizational structure of the vessel. Pursuant to Title 46, Code of Federal Regulations (CFR) 15.501(b), this template may be used to provide the necessary information. In preparing the minimum safe manning proposal, it is recommended that the following relevant documents be referenced:

- 46 U.S.C Chapter Part F – Manning of Vessels
- 46 CFR Chapter I, Subchapter B – Merchant Marine Officers and Seamen
- Marine Safety Manual Volume II: Materiel Inspection
- Marine Safety Manual Volume III: Marine Industry Personnel
- International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended
- International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), 1978, as amended
- Principles of Minimum Safe Manning, IMO Resolution A.1047(27), as amended

Title 46 CFR 15.505 requires that all requests for changes in manning be made to the OCMI who last issued the Certificate of Inspection (COI)¹, unless the request is made in conjunction with an inspection for certification, in which case the request should be addressed to the OCMI conducting the inspection. Complete all applicable shaded areas for a single vessel. This template is not all-inclusive and may be modified as necessary. It is recommended that a copy be retained by the Company.

1. Administrative

- 1.1 Officer in Charge, Marine Inspection (OCMI) zone:
- 1.2 Company Point of Contact:
- 1.3 Date of Submittal (DD/MMM/YYYY):
- 1.4 Specify Reason (i.e., New Construction, Reflag, Modification, Change in Service, Other):

2. Operating Company Details²

- 2.1 Name of Registered Owner:
 - 2.1.1 IMO Registered Owner #:
 - 2.1.2 Address of Registered Owner:
- 2.2 Name of Operating Company:³
 - 2.2.1 IMO Company #:
 - 2.2.2 Address of Operating Company:

¹ Includes Safe Manning Document (SMD) and Safe Manning Letter (SML)

² Information same as Certificate of Documentation (COD) and Continuous Synopsis Record (CSR), as applicable.

³ Information same as Document of Compliance (ISM), as applicable.



Suggested Template: Minimum Safe Manning Proposal

To Supplement the Application for Inspection of U.S. Vessel [CG-3752/3752A]

(Rev. 06-17)

Vessel Name: _____

IMO#/O.N./CG#: _____

3.1 Vessel Details

3.1.1 Vessel Name and Call Sign:			
3.1.2 IMO #:			
3.1.3 Official Number (O.N.) or CG Number:			
3.1.4 Hull Number (if available):			
3.1.5 Class Identification Number (if available):			
3.1.6 Hailing Port:			
3.1.7 Vessel Service/Type:			
3.1.8 Inspection Subchapter(s): ⁴			
3.1.9 Design Basis Agreement (DBA)?	(Attach if applicable)		
3.1.10 Multi-Service:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
3.1.11 Alternate Compliance Program (ACP):	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
3.1.12 Maritime Security Program (MSP) [& MSP Select]:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
3.1.13 Streamlined Inspection Program (SIP): ⁵	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
3.1.14 Safety Mgmt System (SMS) [ISM Code or Sub. M]?	<input type="checkbox"/> SMS	<input type="checkbox"/> TSMS	<input type="checkbox"/> N/A

3.2 Vessel Particulars

3.2.1 Route Permitted (incl. limitations):			
3.2.2 International Voyages:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
3.2.3 Keel Laid Date (DD/MMM/YYYY):			
3.2.4 Gross Tonnage:	GRT -	GT ITC -	
3.2.5 Length:	R -	I -	
3.2.6 Main Propulsion Power (aggregate):	hp -	kW -	
3.2.7 Propulsion Type/Mode (Motor, Steam, Electric):			
3.2.8 Sister Vessels (Name/IMO # or O.N., Hull #):	(Attach list of necessary)		

4. Recommended Attachments

	Attached?	
4.1 Completed Station Bill:	<input type="checkbox"/> Yes	<input type="checkbox"/> No
4.2 Completed Watch Schedule (In Port & At Sea):	<input type="checkbox"/> Yes	<input type="checkbox"/> No
4.3 Record for Hours of Work and Rest or Software Details:	<input type="checkbox"/> Yes	<input type="checkbox"/> No
4.4 Shipboard Organization Chart and Position Description & Responsibility Details: ⁶	<input type="checkbox"/> Yes	<input type="checkbox"/> No

⁴ 46 CFR Subchapters D/H/I/IA/K/L/M/R/T/U, Uninspected, etc.

⁵ D8/9 TBSIP not applicable.

⁶ Description of duties including routine maintenance, operational evolutions, and emergencies.



Suggested Template: Minimum Safe Manning Proposal

To Supplement the Application for Inspection of U.S. Vessel [CG-3752/3752A]

(Rev. 06-17)

Vessel Name: _____

IMO#/O.N./CG#: _____

5. Shipboard Equipment

5.1 Radiocommunications

5.1.1 GMDSS:	<input type="checkbox"/> Yes	<input type="checkbox"/> No			
5.1.2 At-sea maintenance capability?	<input type="checkbox"/> Yes	<input type="checkbox"/> No			
5.1.2 Radio Equipment by Sea Area (circle one):	N/A	A1	A2	A3	A4 ⁷
5.1.3 Number of GMDSS Operators: ⁸					

5.2 Navigation Equipment

5.2.1 ECDIS:	<input type="checkbox"/> Yes	<input type="checkbox"/> No
5.2.2 Radar: ⁹	<input type="checkbox"/> Yes	<input type="checkbox"/> No
5.2.3 ARPA: ¹⁰	<input type="checkbox"/> Yes	<input type="checkbox"/> No
5.2.4 Dynamic Positioning System:	<input type="checkbox"/> Yes (Class:)	<input type="checkbox"/> No

5.3 Lifesaving Equipment

5.3.1 Total number of persons for which lifesaving appliances are provided:		
5.3.2 Lifeboats:	Quantity:	Capacity:
5.3.3 Rescue Boats/Platforms:	Quantity:	Capacity:
5.3.4 Inflatable Liferafts:	Quantity:	Capacity:
5.3.4 Life Floats/Buoyant Apparatus:	Quantity:	Capacity:
5.3.5 Inflatable Buoyant Apparatus:	Quantify:	Capacity:
5.3.6 Number of Lifeboatmen: ¹¹		

5.4 Accommodation

5.4.1 Stability Letter - maximum number of persons (passengers and crew):	
5.4.2 Maximum number of crew berths available:	
5.4.3 Marine Sanitation Device – maximum number of persons rated for:	

5.5 Vessel Combinations

5.5.1 Combination vessel (e.g., Articulated Tug/Barge)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
5.5.2 Name of other vessel:		IMO#, O.N. or CG#:
5.5.3 Indicate if “permissive crewing” or “conditional occupancy” is requested: ¹²		
5.5.4 If yes, number of persons:		

⁷ See Block 10.6 for vessels operating in Polar Waters.

⁸ See MSM III.B3.L. All deck officers, including the master, on seagoing vessels with GMDSS unless excluded by 46 CFR 15.105(f) & (g).

⁹ See MSM III.B3.J.

¹⁰ See MSM III.B3.K.

¹¹ See Sample Manning Scales in MSM III.B2.

¹² See MSM II.A3 for “permissive crewing” and CG-CVC Policy Letter 16-04 for “conditional occupancy.”



Suggested Template: Minimum Safe Manning Proposal

To Supplement the Application for Inspection of U.S. Vessel [CG-3752/3752A]

(Rev. 06-17)

Vessel Name: _____

IMO#/O.N./CG#: _____

6. Watch System

6.1	Will a watch system be adopted? ¹³	<input type="checkbox"/> Yes	<input type="checkbox"/> No
6.2	If 'yes,' which watch system will be adopted?	<input type="checkbox"/> Two	<input type="checkbox"/> Three <input type="checkbox"/> N/A
6.3	Is the vessel operating with a Periodically Unattended Machinery Space?	<input type="checkbox"/> Yes <small>(See Block 7.10)</small>	<input type="checkbox"/> No
6.4	Will the Master undertake a navigational watch?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
6.5	Will the Chief Engineer undertake a watch?	<input type="checkbox"/> Yes	<input type="checkbox"/> No

7. Additional Engineering Details

7.1	Novel System(s)	<input type="checkbox"/> Yes	<input type="checkbox"/> No
7.2	Explain (include attachment if necessary):		
7.3	Total internal combustion engine prime movers:		
7.4	Total electrical generators (SSDG):		
7.5	Equipment powered by prime movers identified in 7.3 (not including SSDGs), incl. HP or kW (include attachment if necessary):		
7.6	Identify main control location (Bridge, ECR, etc.):		
7.7	Approved automation test procedures?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
7.8	Qualitative failure analysis approved?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
7.9	Design verification procedure/testing complete?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
7.10	Periodically Unattended Machinery Space (PUMS)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
7.11	Minimally Attended Machinery Space (MAMS)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
7.12	MSP Reflag: Interim acceptance of PUMS/MAMS? ¹⁴	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A
7.12.1	If yes, identify gaps:	(Attach list of necessary)	
7.13	Planned maintenance program (describe) (include attachment if necessary):		
7.14	Reduced manning requested?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
7.15	Describe arrangements for reductions based on limited route and availability of shore-based maintenance support (include attachment if necessary):		
7.16	Who is responsible for bunkering/fueling:		

¹³ See MSM III.B5.A.

¹⁴ See NVIC 01-13 CH-1, Enclosure (2)



Suggested Template: Minimum Safe Manning Proposal

To Supplement the Application for Inspection of U.S. Vessel [CG-3752/3752A]

(Rev. 06-17)

Vessel Name: _____

IMO#/O.N./CG#: _____

8. Cargo & Passenger Operations

8.1	Circle one:	Cargo Vessel <small>(incl. OSV & Towing)</small>	Oil Tanker	Chemical Tanker	Liquefied Gas Carrier	Passenger Vessel	Other:
8.2	Type of cargo to be carried?						
8.3	Dangerous Goods?		<input type="checkbox"/> Yes		<input type="checkbox"/> No		
8.4	What cargo handling gear is fitted?						
8.5	Who operates it?						
8.6	Who undertakes hold/tank cleaning?						
8.7	Who secures the cargo?						
8.8	Number of Tankerman (PICs) for manned tank vessel or tankship:						
8.9	Number of decks with passenger access:						
8.10	Other specialized equipment, explain (e.g., ROV, offshore crane, etc.):						

9. Mooring Operations

9.1	Number of crew required for mooring operations:					
9.2	Are constant/self tension winches fitted?	<input type="checkbox"/> Yes		<input type="checkbox"/> No		
9.3	Number of bow thrusters?					
9.4	Number of stern thrusters?					
9.5	Number of tugs required for mooring operations?					

10. Additional Manning Factors

10.1	Who is responsible for onboard medical care?					
10.2	Is the Vessel Security Officer identified in the Security Plan by position? ¹⁵	<input type="checkbox"/> Yes		<input type="checkbox"/> No		
10.3	Is there a Stewards Department?	<input type="checkbox"/> Yes		<input type="checkbox"/> No		
10.4	If yes, describe?					
10.5	If no, who is responsible for cooking/catering duties?					
10.6	Operations in Polar Waters? ¹⁶	<input type="checkbox"/> Yes		<input type="checkbox"/> No		
10.7	Polar Waters Operating Manual (PWOM)?	<input type="checkbox"/> Yes		<input type="checkbox"/> No		
10.8	Documentary Evident of Polar Training:					
10.9	Voluntary Maritime Labour Convention (MLC)? ¹⁷	<input type="checkbox"/> Yes		<input type="checkbox"/> No		

¹⁵ See MSM III.B3.M.

¹⁶ See CG-OES Policy Letter 01-16.

¹⁷ See Navigation and Vessel Inspection Circular (NVIC) No. 02-13.



Suggested Template: Minimum Safe Manning Proposal

To Supplement the Application for Inspection of U.S. Vessel [CG-3752/3752A]

(Rev. 06-17)

Vessel Name: _____

IMO#/O.N./CG#: _____

11. Safe Manning Worksheet

The established manning level must not be less than the minimums stipulated by law or regulation. Fill out Section 12 (Alternate Manning Worksheet) if multiple manning levels are requested based on service, route or voyage length.¹⁸

Trading Area/Route: (Oceans, Coastwise, etc.)		Voyage Length: (Unl, 600 NM, 12 hrs, etc.)	
Grade	Endorsement(s): -Detail any additional endorsements (e.g., Towing) ¹⁹ -Specify any trade restricted endorsements (e.g., OSV)	Number of Persons	STCW Reg. ²⁰
11.1 Deck Department			
Master	MSM III.B3.C		
Chief Mate	MSM III.B3.D		
Second Mate	MSM III.B3.D		
Third Mate(s)	MSM III.B3.D		
Mate(s)	MSM III.B3.D		
Master FCP(s) ²¹	MSM III.B3.I		
Mate FCP(s) ²¹	MSM III.B3.I		
FCP(s) ²¹	MSM III.B3.I		
Able Seamen	MSM III.B4.D		
Ordinary Seamen	MSM III.B4.D		
Deckhands	MSM III.B4.D		
Maintenance-Persons	MSM III.B4.F		
11.2 Engine Department			
Chief Engineer	MSM III.B3.E		
1 st A/E ²¹	MSM III.B3.F		
2 nd A/E ²¹	MSM III.B3.F		
3 rd A/E(s) ²¹	MSM III.B3.F		
Engineer(s)	MSM III.B3.F		
DDE ²¹	MSM III.C2.B		
QMED ²¹	MSM III.B4.E		
Maintenance-Persons	MSM III.B4.F		

¹⁸ Section 11 should reflect the highest, most stringent manning level based on service, route or voyage length.

¹⁹ See Block 11A.1.

²⁰ Indicate appropriate STCW Reg. under which the crew is qualified to serve in the capacity assigned, as applicable; e.g. Master – STCW II/2, Chief Engineer – STCW III/2, RFPNW – STCW II/4, etc. See Block 11A.3.

²¹ FCP = First Class Pilot; A/E = Assistant Engineer; DDE = Designated Duty Engineer, QMED = Qualified Member of the Engine Department.



Suggested Template: Minimum Safe Manning Proposal

To Supplement the Application for Inspection of U.S. Vessel [CG-3752/3752A]

(Rev. 06-17)

Vessel Name: _____

IMO#/O.N./CG#: _____

11.3 Maintenance Department (Optional)			
Maintenance-Persons ²²	MSM III.B4.F		
11.4 Radio Department (Optional)			
Radio Officer/GMDSS At-Sea Maintainer ²³			
11.5 Others (Explain)			
11.6	Number of Crew (11.1 + 11.2 + 11.3 + 11.4 + 11.5) =		
11.7	Number of Passengers:		
11.8	Number of Other Persons in Crew (incl. Stewards Department):		
11.9	Number of Persons in Addition to Crew:		
11.10	Number of Offshore Workers:		
11.11	Number of Industrial Personnel:		
11.12	Number of Scientific Personnel:		
11.13	Total Persons Allowed ²⁴ (11.6 + 11.7 + 11.8 + 11.9 + 11.10 + 11.11 + 11.12) =		

11A. Index of additional National Endorsements and STCW Endorsement Regulations			
11A.1 Additional National Endorsements:		11A.3 STCW Endorsements:	
Towing/TOAR	MSM III.B3.G	Reg. II/1 – Officer in Charge of a Navigational Watch (OICNW) Reg. II/2 – Master, Chief Mate Reg. II/3 – Master & OICNW < 500 GT ITC Near Coastal Reg. II/4 – Rating Forming Part of a Navigational Watch Reg. II/5 – Able Seafarer-Deck Reg. III/1 – Officer in charge of an Engineering Watch (OICEW) 750 kW (1,000 HP) or More Reg. III/2 – Chief Engineer/Second Engineer Officer of 3,000 kW (4,000 HP) or More Reg. III/3 – Chief Engineer/Second Engineer Officer between 750 kW (1,000HP) and 3,000 kW (4,000 HP) Reg. III/4 – Rating Forming Part of an Engineering Watch (RFPEW) Reg. III/5 – Able Seafarer Engine	
High-Speed Craft (HSC)	MSM III.B2.T		
Offshore Installation Manager (OIM)	MSM III.B2.O		
Ballast Control Operator (BCO)	MSM III.B2.O		
Barge Supervisor (BS)	MSM III.B2.O		
Tankerman	46 CFR 15.860		
11A.2 Additional STCW Endorsements:			
Reg. IV/2 – GMDSS Operator <u>or</u> At-Sea Maintainer			
Reg. V/1-1 – Basic <u>or</u> Advanced Oil & Chemical Tanker Cargo Operation			
Reg. V/1-2 – Basic <u>or</u> Advanced Oil & Chemical Tanker Cargo Operation			
Rev. V/2 – Passenger Vessel ²⁵			
Reg. VI – Survival Craft, Rescue Boat, Fast Rescue Boat			

²² Include Maintenance Department operating manual or Safety Management System excerpt.

²³ In lieu of GMDSS Radio Operators, see Block 5.1.3. For detailed discussion see MSM III.B3.L.

²⁴ Should not exceed Blocks 5.3.1 & 5.4.3.

²⁵ Documentary evidence, see 46 CFR 15.1103(f).



Suggested Template: Minimum Safe Manning Proposal

To Supplement the Application for Inspection of U.S. Vessel [CG-3752/3752A]
(Rev. 06-17)

Vessel Name: _____

IMO#/O.N./CG#: _____

12. Alternate Manning Worksheet

The established manning level must not be less than the minimums stipulated by law or regulation. Explain any deviations or reductions in manning levels based on service, route or voyage length.

Service:	Grade:	Number of Persons	STCW Reg. ²⁶
Route:	-Identify grade (e.g., Mate, Asst. Engineer, etc.)		
Voyage Length: (Unl, 600 NM, 12 hrs, etc.)			

13. U.S. Coast Guard Comments – Official Use Only

13.1 Marine Inspector (Name): _____

13.2 Reviewed By (Supervisor): _____

13.3 Date of Review (DD/MMM/YYYY): _____

13.4 MISLE Activity Number: _____

13.5 For vessels with ISM Code certification (Block 3.1.13);

- Verify Company procedure to ensure that the vessel is manned with qualified, certificated and medically fit seafarers under ISM Code Clause 6.2.
- Verify Company procedure, plans and instructions for key shipboard operations, including that they are assigned to qualified personnel under ISM Code Clause 7.

13.6 For vessels under the TSMS option (Block 3.1.13);

- Verify Company *Employment Procedures* under 46 CFR 138.220(b).
- Verify Company procedures for *Compliance with Subchapter M* personnel requirements under 46 CFR 138.220(d).

13.7 Comments:

²⁶ Indicate appropriate STCW Reg. under which the crew is qualified to serve in the capacity assigned, as applicable; e.g. Master – STCW II/2, Chief Engineer – STCW III/2, RFPNW – STCW II/4, etc. See Section 11A.3.



Mission Management System (MMS) Work Instruction

ASSIGNMENT OF U.S. VESSEL MANNING

OBJECTIVE:

The objective of this work instruction is to provide a uniform procedure for the assignment of U.S. vessel manning in accordance with Sections **B1.C - F** of Ref. (a), which can be incorporated into a field-level Mission Management System (MMS). This instruction is not intended to provide detailed instruction on how to use the Marine Information for Safety and Law Enforcement (MISLE).

GOALS AND PURPOSE:

This work instruction details the procedure for the assignment of manning for U.S. vessels, including the administrative processing of associated documentation in accordance with Ref. (a).

NOTE 1: For the purposes of this work instruction, the generic use of the term “safe manning documentation” refers to Certificate of Inspection (COI), Safe Manning Document (SMD) and Safe Manning Letter (SML) as applicable.

REFERENCES:

- a. Marine Safety Manual Volume III, Marine Industry Personnel: COMDTINST M16000.8B
- b. Principles of Minimum Safe Manning, IMO Resolution A.1047(27), as amended
- c. MISLE 5.0 Vessel User Guide
- d. MISLE Vessel Inspection User Guide
- e. Marine Safety Manual Volume II, Materiel Inspection: COMDTINST M16000.7B

INDEX OF RELEVANT DOCUMENTS:

- a. 46 U.S.C. Chapter F – Manning of Vessels
- b. 46 CFR Chapter I, Subchapter B – Merchant Marine Officers and Seamen
- c. International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended
- d. International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), 1978, as amended

TERMS OF REFERENCE:

- a. CFR – Code of Federal Regulations
- b. CG-CVC – Office of Commercial Vessel Compliance
- c. CG-CVC-1 – Domestic Vessel Compliance Division
- d. COD – Certificate of Documentation
- e. COI – Certificate of Inspection, Form CG-841
- f. COTP – Captain of the Port
- g. CSR – Continuous Synopsis Record
- h. DOC – Document of Compliance (ISM Code)
- i. GMDSS – Global Maritime Distress and Safety System
- j. HSC – High Speed Craft
- k. IMO – International Maritime Organization
- l. IO – U.S. Coast Guard Investigating Officer
- m. ISM – International Safety Management Code
- n. MI – U.S. Coast Guard Marine Inspector
- o. MISLE – Marine Information for Safety and Law Enforcement (MISLE)
- p. MMS – Mission Management System
- q. MSM – Marine Safety Manual
- r. OCMI – Officer in Charge, Marine Inspection
- s. PTP – Permit to Proceed to Another Port for Repairs (PTP), Form CG-948.
- t. SMC – Safety Management Certificate (ISM Code)
- u. SMD – Safe Manning Document
- v. SML – Safe Manning Letter
- w. SOLAS – International Convention for the Safety of Life at Sea
- x. STCW – International Convention on Standards of Training, Certification and Watchkeeping for Seafarers
- y. U.S.C. – United States Code
- z. USCG – United States Coast Guard
- aa. VCP – Vessel Critical Profile (MISLE)

BACKGROUND:

Under 33 CFR 1.01-20, the OCMI is responsible for the enforcement of vessel inspection, navigation, and seamen's laws within a specific zone. In this capacity, the OCMI is responsible for establishing manning levels for various types of vessels. The Certificate of Inspection (COI), Form CG-841, states the minimum number of credentialed officers and crewmembers necessary for the safe operation of inspected vessels, as required by 46 U.S.C. 8101 and 46 CFR 15.501. Also, many uninspected U.S. merchant vessels are subject to the manning requirements of 46 U.S.C. 8103, 8104, 8304, 8701-8703, 8903 and 8904. The International Convention for the Safety of Life at Sea (SOLAS), Chapter V, Regulation 14 requires each vessel to which SOLAS Chapter I applies to be issued a "Safe Manning Document."

AUTHORITY:

The general regulations for manning of vessels are contained in 46 CFR, Part 15. Requirements concerning certificated lifeboatmen, fire patrolmen, and other vessel specific manning standards are detailed in the parts of the regulations dealing with the inspection of that particular type of vessel. The general manning and crewing requirements for vessels and facilities operating on the U.S. Outer Continental Shelf are contained in Part 141 of Title 33 (Subchapter N, Outer Continental Shelf Activities).

AUDIENCE:

Primary: Marine Inspectors (MI); Enlisted Assistant Marine Inspectors (EAMI);
Investigating Officers (IO)

Secondary: Officers in Charge, Marine Inspection (OCMI); Prevention Department Heads
(PDH); Chiefs, Inspection Division (CID); Chiefs Investigations Division (CINV);
Marine Inspection Training Officers (MITO)

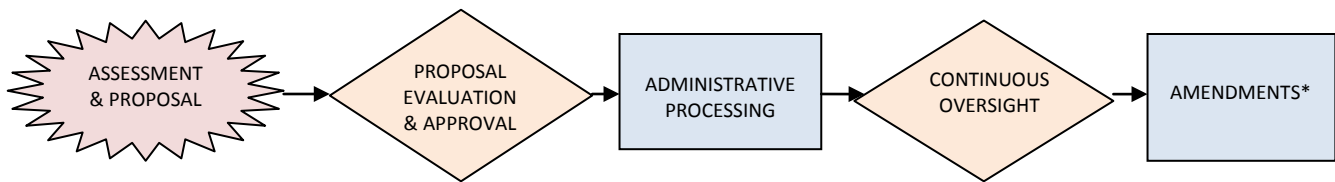
DISCLAIMER:

This work instruction cannot address every scenario or procedure USCG personnel may encounter, nor is every example applicable depending on circumstance. Some situations will result in the need to deviate from guidance to accomplish the mission based on the totality of the circumstance and individual judgment. Personnel may have to deviate, as necessary, to complete the task with greater safety, effectiveness, or efficiency as judgment dictates. Personnel must temper the decision to deviate with maturity and a complete understanding of the mission, situational awareness, scope of practice capabilities, and available resources. Consult with the unit chain of command when feasible and practical.

MI NOT LIMITED:

The MI has a duty to act when a perceived unsafe condition or behavior may result in an inherently dangerous event. The MI should work with the Master to address immediate corrective action. Nothing in this instruction should be construed as limiting the MI from making such tests or inspections as he/she deems necessary to be assured of the safety and seaworthiness of the vessel. The MI consults with the Master of the vessel before requiring a drill or other test or procedure to be conducted to minimize disruption of operations and risk to life or property.

GENERAL PROCEDURE:



*As warranted.

DETAILED PROCEDURE:

1. ASSESSMENT & PROPOSAL

- 1.1 To supplement a manning request or when alternatives to the sample manning scales are sought, the cognizant OCM I should request the company responsible for the operation of the vessel to prepare and submit its proposal for the minimum safe manning of that vessel in accordance with Section **B1.D** of Ref. (a).
- 1.2 In preparing a proposal for the minimum safe manning of a vessel engaged on an international voyage, the company should apply the principles, recommendations and guidelines contained in Ref. (b).
- 1.3 A *Suggested Template: Minimum Safe Manning Proposal* is provided in the **Annex** of Ref. (a), which may be used to prepare and submit a minimum safe manning proposal.

2. PROPOSAL EVALUATION & APPROVAL

- 2.1 In addition to statutory and regulatory requirements, the OCM I should consider the factors outlined in Section **B1.C** of Ref. (a). The established manning level must not be less than the minimums stipulated by law or regulation.
- 2.2 The OCM I should evaluate the company's minimum safe manning proposal to ensure that the provisions outlined in Section **B1.E** of Ref. (a) are adequately addressed.
- 2.3 The sample manning sales and tables in Chapters **B2** & **B7** of Ref. (a) provide guidance on the numbers of credentialed deck and engineer officers, and ratings that may be considered appropriate for different sizes of vessels (tonnage), trading areas, and aggregate propulsion power.
- 2.4 The proposal and resulting determination should be thoroughly documented in MISLE.
- 2.5 If the company's proposal is determined to be sufficient, proceed to Section 3 – Administrative Processing.

- 2.6 If the company's proposal is determined to be insufficient, the OCMI should respond providing justification and outline manning levels that are considered acceptable. This may include requesting an amended minimum safe manning proposal. This justification and any related correspondence should be documented in MISLE.
- 2.7 In accordance with 46 CFR 1.03-20, any person directly affected by a decision or action of an OCMI may, after requesting reconsideration of the decision or action by the cognizant OCMI, make a formal appeal of that decision or action, via the office of the cognizant OCMI, to the District Commander of the district in which the office of the cognizant OCMI is located, or in the case of the Officer in Charge, Activities Europe, to the Atlantic Area Commander, in accordance with the procedures contained in 46 CFR 1.03–15.
- 2.8 Contact the Cognizant District for information regarding waterway navigability determinations and designations.

3. ADMINISTRATIVE PROCESSING

3.1 Preparing Safe Manning Documentation

3.1.1 Inspected Vessels (COI)

3.1.1.1 Ref. (c) [[MISLE 5.0 Vessels User Guide](#)] may be used when populating manning details in MISLE. Specifically: Section 4.6 – Manning Requirements; Section 4.7 – Additional Manning Requirements; and Section 4.8 – Routes and Conditions.

3.1.1.2 Ref. (d) [[MISLE Vessel Inspection User Guide](#)] may be used for generating the COI in MISLE. Specifically: Section 2 – Navigate to Vessel Inspection Activity; Section 4 – Create/Edit Domestic Vessel Inspections; and Appendix F – Certificate of Inspection.

3.1.2 Uninspected Vessels (SMD or SML)

3.1.2.1 The SMD and SML should be drafted in accordance with the model templates in the Annex of Ref. (a). Working templates are available in CG Portal; [Model Formats – Safe Manning Docs \(SMD/SML\)](#)

3.2 Formatting Safe Manning Documentation

- 3.2.1 Safe manning documentation should be formatted with the most stringent manning level in the manning block. Record alternate manning reductions based on length of voyage, hours of operation, vessel service, and geographic limitation in the “Route and Conditions of Operations.”
- 3.2.2 Format safe manning documentation for Credentialed Officers, including Mates and Engineers, in accordance with Chapter **B3** of Ref. (a).
- 3.2.3 Format safe manning documentation for GMDSS Operators in accordance with Section **B3.L** of Ref. (a).

- 3.2.4 Format safe manning documentation for Credentialed Ratings, Non-Credentialed Crew, Maintenance-Persons and Maintenance Department in accordance with Chapter **B4** of Ref. (a).
- 3.2.5 Format safe manning documentation for HSC Type Rating in accordance with Section **B2.T** of Ref. (a).
- 3.2.6 Format safe manning documentation for Certified Lifeboatmen based on the specific lifesaving equipment carriage requirements for the vessel, Chapter **B2** of Ref. (a).

NOTE 2: Where the “Crew Members” field appears in the manning block on the COI, it is intended to be the summation of the minimum required crew and not an individual or independent manning requirement. A future MISLE enhancement will eliminate this field. Any miss-assignment of an individual or independent manning requirement under the “Crew Members” field should be reconciled under the appropriate crew classification and amended.

NOTE 3: A future MISLE enhancement will eliminate the “Non Licensed Engineer De[pts]” field. Any miss-assignment of an individual or independent manning requirement under this field should be reconciled under the appropriate crew classification and amended.

3.3 Review & Approval

- 3.3.1 The completed drafts should be routed to the OCMI, or delegate, via the unit chain of command.
- 3.3.2 The routed package should include:
- Minimum safe manning proposal with any attachments;
 - VCP;
 - MISLE activity summary;
 - Any related correspondence; and,
 - Draft manning documentation.
- 3.3.3 Quality control reviewers should:
- Verify that COI manning entries conform to Section **A.3.H** of Ref. (e);
 - Verify that manning requirements correspond with vessel route, particulars, and service;
 - Verify that any safe manning endorsements correspond with the Common COI/SMD Sample Endorsements in the **Annex** of Ref. (a);
 - Verify that vessel particulars and owner/operator details are properly stated by comparing to VCP, COD, CSR, SMC/DOC, convention certificates and classification documents, as applicable;
 - Review the minimum safe manning proposal;

- Verify safe manning documentation formatting in accordance with Ref. (a);
 - Review the associated MISLE activity and confirm that the minimum safe manning proposal is uploaded to the associated MISLE activity under “Documents.” Ref. (d) [[MISLE Vessel Inspection User Guide](#)] may be used for managing documents in MISLE. Specifically: Section 4.12 – Documents; and,
 - Ensure that the total number of persons allowed does not exceed the total number of persons for which lifesaving appliances are provided. Verify agreement with any applicable SOLAS safety equipment certificates.
 - Verify that the sum of the required manning, passengers, other persons in crew, persons in addition to crew, offshore workers, industrial and scientific personnel equals the total number of persons allowed. This includes any alternate manning reductions recorded in the “Route and Conditions of Operations.”
- 3.3.4 Safe manning documentation should only be signed by the OCMI or authorized delegate.
- 3.3.5 Signed safe manning documentation should be uploaded to MISLE under the associated activity. Ref. (d) [[MISLE Vessel Inspection User Guide](#)] may be used for managing documents in MISLE. Specifically: Section 4.12 – Documents
- 3.3.6 Deliver the original safe manning documentation to the appropriate vessel representative. Additionally, the *Master’s Field Guide to U.S. Vessel Manning*, provided in the **Annex** of Ref. (a), should be distributed as an accompaniment.

4. OVERSIGHT

- 4.1 During inspection and investigation activities, Coast Guard personnel shall verify compliance with the manning level specified on the safe manning documentation, as well as with any other applicable manning regulations (i.e., watchkeeping, work hour provisions and rest periods, and shipboard maintenance) in accordance with Sections **B1.F**, **B1.K**, **B5.F** & **B6.A** of Ref. (a).
- 4.1.1 Specifically, Section **B1.F** of Ref. (a) outlines specific instructions regarding the oversight of safe manning, including; examples of clear grounds, expanded inspections and control procedures/deficiencies.
- 4.1.2 Oversight may also arise from investigations into vessel casualties and reports by vessel crewmembers. While conducting marine casualty investigations, IOs should actively check for causal factors stemming from safe manning as well as with any other applicable manning regulations (i.e., watchkeeping, work hour provisions and rest periods, and shipboard maintenance). Any potential SMS deficiencies identified during a post-casualty investigation shall be immediately reported to the unit’s Inspections Division for potential follow-up actions.

NOTE 4: Reference Section **A.6.B** of Ref. (e) for specific instructions regarding the issuance of the Permit to Proceed to Another Port for Repairs (PTP), Form CG-948. In the case that the COI for a manned inspected vessel is withdrawn and replaced with a PTP, the OCMI should consider issuing a SMD or SML, as appropriate. A SMD should be issued in the case that the vessel is subject to Regulation V/14.2 of SOLAS.

- 4.2 A *Safe Manning Verification check-sheet*, which may be used as a guide for oversight activities, is provided in the **Annex** of Ref. (a).

5. **AMENDMENTS**

- 5.1 Requests for amendments to safe manning documentation should be processed in accordance with Sections 1 – 3 of this work instruction.
- 5.1.1 Title 46 CFR 15.505 requires that all requests for changes in manning be made to the OCMI who last issued the COI¹, unless the request is made in conjunction with an inspection for certification, in which case the request should be addressed to the OCMI conducting the inspection.
- 5.2 Ref. (d) [[MISLE Vessel Inspection User Guide](#)] may be used for generating the COI amendment in MISLE. Specifically: Section 2 – Navigate to Vessel Inspection Activity; Section 4 – Create/Edit Domestic Vessel Inspections; and Appendix F – Certificate of Inspection.
- 5.3 Refer to Chapter **B6** of Ref. (a) for machinery space attendance and/or reduced manning requests based on automated features.
- 5.4 Refer to Sections **B1.K.3**, **B5.F.3** and **B6.A.5** of Ref. (a) for increases in manning levels. Involuntary increases in vessel manning must be substantiated by objective evidence and should be processed in accordance with Sections 1 – 3 of this work instruction.

NOTE 5: Reference Section **B1.F** of Ref. (a) for specific instructions regarding safe manning, including examples of clear grounds, expanded inspections and control procedures/deficiencies.

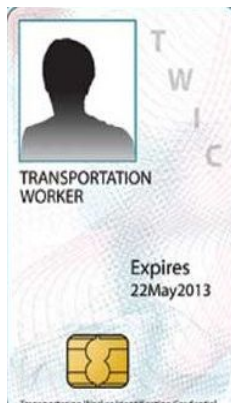
SUGGESTIONS / CHANGES:

CG-CVC-1 will maintain this work instruction. Direct any suggested improvements or comments to CG-CVC-1@uscg.mil by filing a Corrective Action Request (CAR).

ATTACHMENT(S):

None.

¹ Includes Safe Manning Document (SMD) and Safe Manning Letter (SML)



Transportation Worker Identification Credential (TWIC), 46 CFR 10.203.

All mariners serving on vessels with a U.S. Coast Guard approved security plan, with secure areas, are required to hold a valid TWIC. Refer to MSM III.B3.P for details.

Global Maritime Distress & Safety System (GMDSS) Radio Operator, 46 CFR 15.817.

- The controlling authority for radio operators & installations is generally a function of the FCC.
- All deck officers, including the master, on seagoing vessels equipped with a GMDSS, except those vessels listed in 46 CFR 15.105(f) & (g), must provide evidence of a valid STCW endorsement as GMDSS radio operator.
- The requirement for such persons shall be noted on the vessel's COI or SMD.
- Effective March 25, 2008, FCC GMDSS licenses are issued for the holder's lifetime.

Refer to MSM III.B3.L for details.

IV. Working Hours

In addition to prescribing watch requirements, 46 U.S.C. 8104 sets limitations on working hours, prescribes certain rest periods, and prohibits unnecessary work on Sundays & certain holidays when the vessel is in a safe harbor. It is the responsibility of the master or person in charge to ensure that these limitations are met. Vessels subject to STCW have additional work hour limits & schedule/recordkeeping requirements. The requirements for rest periods need not be maintained in the case of an emergency or in other overriding operational conditions. Refer to MSM III.B5 for details.

Rest hour violations should be accompanied by documented corrective action, including compensatory rest period records.

V. Watches

The master is responsible for ensuring that adequate watches are established for the both at-sea and in-port operations that necessitate watchkeeping personnel, including those whose duties involve designated safety, security and prevention of pollution functions. In exercising this responsibility, the master must take into account applicable statutory and regulatory provisions and international conventions. Refer to MSM III.B5 for details.

Gross Tonnage	Route	Length of Voyage	Watch System
General			
≤100 GRT	Domestic-Any	≤12 Hours	1
≤100 GRT	Domestic-Any	>12 Hours	2
>100 GRT	Rivers, L/B/S	≤12 Hours	1
>100 GRT	Rivers, L/B/S	>12 Hours	2
>100 GRT	Oceans/Great Lakes	Any Length	3
Towing Vessels			
≤100 GRT	Domestic-Any	≤12 Hours	1
≤100 GRT	Domestic-Any	>12 Hours	2
<200 GRT	Any	Any Length	2
≥200 GRT	Rivers, L/B/S	Any Length	2
≥200 GRT	Oceans/Great Lakes	<600 Miles	2
≥200 GRT	Oceans/Great Lakes	≥600 Miles	3
Offshore Supply Vessels			
≤100 GRT	Domestic-Any	≤12 Hours	1
≤100 GRT	Domestic-Any	>12 Hours	2
>100 GRT	Any	<600 Miles	2
>100 GRT	Any	≥600 Miles	3
See 46 U.S.C. 8104 & 46 CFR 15.705 for Commercial Fishing, Fish Processing and Fish Tender Vessels.			

Machinery Space Attendance, 46 CFR 15.715.

Vessels authorized to operate with a minimally attended or periodically unattended machinery space (MAMS/PUMS) will have a "Conditions of Operation" endorsement on the COI or annotation on the SMD. Refer to MSM III.B6.A for details.

Specific inquiries should be addressed to your local Officer in Charge, Marine Inspection (OCMI).

Detach, 2-Sided Print, Flip on Short Edge in Landscape

U.S. Department of Homeland Security



Commandant United States Coast Guard

United States Coast Guard

**Master's Field Guide:
U.S. Vessel Manning**



An accompaniment to MSM Volume III: Marine Industry Personnel, COMDTINST M16000.8B Change 2.

Introduction

"The Company should ensure that each ship is manned with qualified, certificated and medically fit seafarers in accordance with national and international requirements." –ISM Code Part A/6.2

It is the responsibility of the owner, managing operator, master, or person in charge to ensure that their vessels are operated in accordance with the Safe Manning, Working Hours and Watchkeeping requirements of the applicable navigation and shipping laws & regulations. This includes the obligation to make certain that their vessels are crewed with personnel of appropriate grades who have been properly trained and certificated.

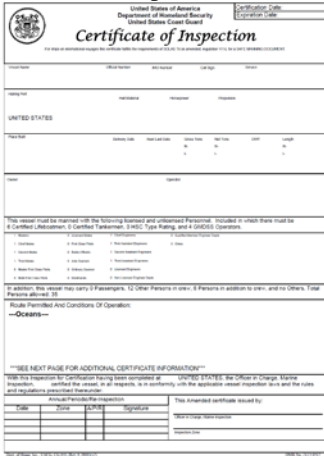
The purpose of this Master's Field Guide is to provide a reference to the laws, regulations & policy pertaining to U.S. vessel manning, credentials, watches, working hours and the shipment & discharge of mariners. It is not an all-inclusive guideline or policy. Credential images not to scale.

Master's are reminded to reference the company safety management system (SMS), as applicable, for vessel specific information.

I. Vessel Manning

Certificate of Inspection (COI), 46 CFR 15.105.

The COI serves as the Safe Manning Document (SMD) for inspected U.S. vessels.



The COI states the minimum numbers and categories of credentialed officers and crewmembers necessary for the safe operation of inspected vessels. It also lists maximum number of passengers and total persons that may be carried. The period of validity is stated on the certificate.

Uninspected vessels operating on an international voyage may be issued a SMD in accordance with SOLAS Chapter V/14.

- ✓ Review the COI/SMD for validity and accuracy.
- ✓ Ensure that the number & composition of crew conforms to the COI/SMD.
- ✓ Comply with the COI/SMD routes & conditions.

Except as provided in 46 CFR 15.725, no vessel may be navigated unless it has in its service and onboard the crew complement required by the COI (46 CFR 15.515).

Crew Vacancies & Sailing Short, 46 CFR 15.725.

In certain cases, 46 U.S.C. 8101 permits a vessel to be navigated without all of the required positions being filled if the master determines that the vessel is sufficiently manned for the voyage. The master is required to report the shortage and explain the cause of it, in writing, to the nearest OCMI. Refer to MSM III.B1.I for details.

II. Shipment & Discharge

A person may not employ or engage an individual, and an individual may not serve, in a position for which a TWIC and/or MMC is required by law or regulation, unless the individual holds all required credentials authorizing service in that capacity and the individual serves within any restrictions placed on the credential (46 CFR 15.401).

The original MMC, along with a valid medical certificate & TWIC must be presented to the master at the time of employment or before signing Articles. The MMC & TWIC should be verified as valid for the period of employment. If a medical certificate expires during a voyage, it will remain valid until the next U.S. port of call, provided that the period after expiration does not exceed 90 days (46 CFR 15.1103(h)(3)). See also;

- Foreign Crewmembers → MSM III.B1.H & I
- Shipboard Familiarization → MSM III B5
- Articles → MSM III.C1.E
- Discharges → MSM III.C1.F
- Official Logbook → MSM III.C1.G
- Display of Credentials → MSM III Annex-9

III. Credentials

Merchant Mariner Credential (MMC), 46 CFR 10.201 - 205.

The personal information on the data page includes all data elements required by the Seafarers' Identify Documents Conventions (Revised) (ILO-185). The MMC is not valid without signature of the holder.



- ✓ Verify that all crew members hold signed, appropriate and valid credentials for the position in which they are engaged.

Consider the following, not all inclusive list, when verifying crew credentials & training:

<input type="checkbox"/> Route	<input type="checkbox"/> Basic Training
<input type="checkbox"/> Tonnage	<input type="checkbox"/> Lifeboatman
<input type="checkbox"/> Grade Level/Capacity	<input type="checkbox"/> Security Training
<input type="checkbox"/> Propulsion Power	<input type="checkbox"/> Pilotage
<input type="checkbox"/> Propulsion Mode	<input type="checkbox"/> Radar Observer
<input type="checkbox"/> Trade Restrictions	<input type="checkbox"/> ARPA
<input type="checkbox"/> Limitations	<input type="checkbox"/> GMDSS
<input type="checkbox"/> Citizenship	<input type="checkbox"/> Tankerman
<input type="checkbox"/> Food Handler	<input type="checkbox"/> Towing/TOAR
<input type="checkbox"/> Crisis Management & Human Behavior (Passengers)	

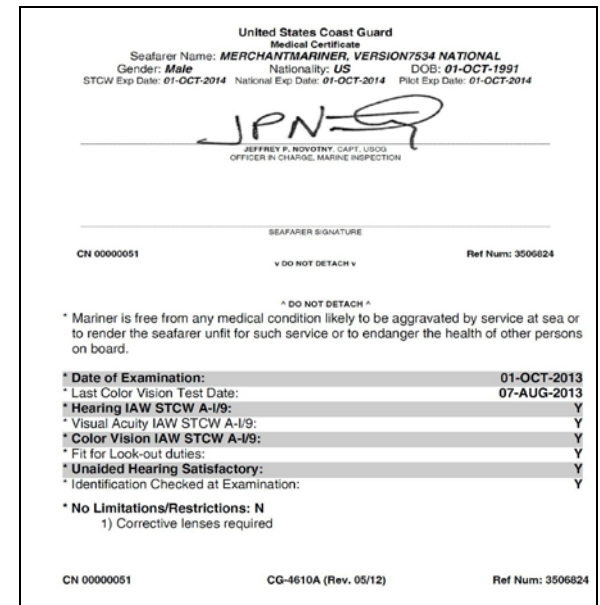
This is an example of the endorsement data page that will be printed on a MMC. Each page contains the reference number of the mariner and the serial number of the booklet. The MMC contains both domestic & STCW endorsements.



NOTE: After 1 January 2017*, all mariners serving on vessels subject to STCW must meet the STCW Convention standards, including the 2010 Amendments.

Medical Certificate, 46 CFR 10.301.

Each medical certificate will have three expiration dates; STCW, First Class Pilotage & national. A valid medical certificate must be carried when serving under the authority of a MMC. The medical certificate will note any operational limitations on the mariner's authority to serve. See MSM III ANNEX-11 for details.



Safe Manning Verification Check-sheet [MSM III.B1.F] (Not all inclusive).

Section I: Vessel Particulars (From COI or SMD/SML.)	
Vessel Name:	
IMO Number:	U.S. O.N. / State Number:
Gross Tonnage: (GRT)	(GT ITC)
Main Propulsion: (Mode)	Aggregate Power: (hp) (kW)
Vessel Service:	Trading Area/Route & Conditions:
Machinery Space Attendance (MAMS/PUMS):	[MSM III.B6]
Watch System (Two/Three Watch):	[MSM III.B5.A.5]
Section II: Credential Verification (Cross-reference crew list and MMCs with COI or SMD/SML to verify compliance with minimum safe manning.)	
Verify authenticity ^[1] , validity, and service within any endorsement restrictions of:	
<input type="checkbox"/> MMC National Endorsement ^[2] : 1) Route; 2) Tonnage ^[3] ; 3) Grade; 4) Trade Restriction; 5) Propulsion Mode; 6) Propulsion Power <input type="checkbox"/> Review COI/SMD Routes & Conditions of Operations Endorsements.....[MSM III Annex-18] <input type="checkbox"/> Persons other than the Minimum Operating Crew / Riding Gangs.....[MSM II.A.3.H.2 / MSM III.B1.H & J.6] <input type="checkbox"/> Verify MMC for all crew ≥100 GRT unless excepted (Deckhands, B4.D).....[MSM III.B4.C.1] <input type="checkbox"/> Radar Observer.....[MSM III.B3.J] <input type="checkbox"/> ARPA.....[MSM III.B3.K] <input type="checkbox"/> FCC License.....[MSM III.B3.L] <input type="checkbox"/> TWIC (as applicable).....[MSM III.B3.P] <input type="checkbox"/> Medical Certificate.....[MSM III Annex-11, 12] <input type="checkbox"/> Lifeboatman (STCW VI/2).....[46 CFR 15.404(e), (f) &(g)] <input type="checkbox"/> Stewards Department, Food Handler.....[MSM III.B4.B.1] <input type="checkbox"/> Maintenance Persons/Department.....[MSM III.B4.F] <input type="checkbox"/> MMC STCW Endorsement (as applicable):.....[MSM III B3 & B4]	
II/1: OICNW (≥500 GT)	III/1: OICEW (≥750 kW)
II/2: Master & Chief Mate (≥3,000 GT, ≥500 GT Seagoing)	III/2: Chief Eng & 2 nd Eng [1 st A/E] (≥3,000 kW)
II/3: Master & OICNW (<500 GT Near Coastal)	III/3: Chief Eng & 2 nd Eng [1 st A/E] (750-3,000 kW)
II/4: RFPNW (≥500 GT)	III/4: RFPEW (≥750 kW)
<input type="checkbox"/> Basic Training (VI/1).....[MSM III.B4.B.1] <input type="checkbox"/> Security (STCW VI/5).....[MSM III.B3.M, N, O]	
Section III: Vessel Specific Service Requirements	
<input type="checkbox"/> Towing Vessel Endorsement/TOAR.....[MSM III.B3.G] <input type="checkbox"/> Radio Officer/GMDSS (STCW IV/2).....[MSM III.B3.L] <input type="checkbox"/> Tankerman-PIC: (1) Dangerous Liquid and/or (2) Liquefied Gas (STCW V/1-1 Oil & Chemical, V/1-2 Liquefied Gas).....[46 CFR 15.860] <input type="checkbox"/> Passenger (STCW V/2).....[MSM III.B3.B & B4.B] <input type="checkbox"/> Pilotage.....[MSM III.B3.I] <input type="checkbox"/> High-Speed Craft Type-Rating.....[MSM III.B2.T] <input type="checkbox"/> Trade Restricted MMC Endorsements.....[MSM III.C2.F]	
Section IV: Automation, Watches & Work/Rest Periods	
<input type="checkbox"/> COI or SMD/SML endorsed for MAMS/PUMS?.....[MSM III.B6] <input type="checkbox"/> Verify watch schedule.....[MSM III.B5] <input type="checkbox"/> Review records of hours of work/rest.....[MSM III.B5] <input type="checkbox"/> PSTP ^[4] Approved by USCG (or ACS for ACP/MSP).....[MSM III.B6] <input type="checkbox"/> Periodic (i.e., annual) test records..... [46 CFR 61.40-6]	

¹ [Online MMC Verification Tool](#)

² See MSM III.C2.

³ See MSM III.B3.B.1 & B.3

⁴ Not limited to MAMS/PUMS, applies to automatically or remotely monitored or controlled systems.